

COURSE GUIDE – short form

Academic year 2018-2019

Course name ¹	Superalloys					Course code	5MATAE DI 01		
Course type ²	DID	Category ³	DI	Year of study	5	Semester	1	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	112	28	-	14	-	108

Pre-requisites from the curriculum ⁵	Compulsory	
	Recommended	

General objective ⁶	Presenting the structure, the properties, the applications and main processing methods of superalloys
Specific objectives ⁷	Conveying practical information concerning the: <ul style="list-style-type: none"> • production, • fabrication • processing • designing • laboratory study • exploitation of superalloys.
Course description ⁸	General characterization of superalloys, superalloys microstructure and properties, physical metallurgy of Ni-based superalloys, single crystal superalloys for turbine blades, superalloys applications.

Assesment		Sche- dule ⁹	Percentage in the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ : Exam	Class tests along the semester	%	60 %
	Home works	%	
	Other activities	%	
	Examination procedures and conditions: Probe 1: Grid test with 40 questions, each of them with 4 variants of answer among which only one correct 100%; Probe 2: working conditions; percent of the final grade %; Probe 3: working conditions; percent of the final grade %;	100 % (mini- mum 5)	
B. Seminar	Activity during seminar		% (minimum 5)
C. Laboratory	Activity during laboratory		40 %
D. Project	Activity during project		% (minimum 5)

Course organizer	Prof.dr.ing. Leandru-Gheorghe BUJOREANU	
Teaching assistants	Assist.Lecturer dr.ing. Elena MIHALACHE	

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