

COURSE GUIDE – short form

Academic year 2017-2018

Course name ¹	Thermal analysis of metallic materials					Course code	3SM11DS		
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	96	28	-	14	-	54

Pre-requisites from the curriculum ⁵	Compulsory	-
	Recommended	-

General objective ⁶	Optimal evaluation and solution of technical problems related to the thermal analysis of metallic materials by applying concepts, theories and experimental methods.
Specific objectives ⁷	<ul style="list-style-type: none"> • Knowledge of the principles underlying the methods of thermal analysis of metallic materials. • Knowledge of methods and instruments for thermal analysis of metallic materials. • Knowledge of the main applications of thermal analysis in the field of metallic materials.
Course description ⁸	Introduction. Thermal analysis and calorimetry - definitions, classifications and terminations. Characterization of measuring instruments. Characterization, interpretation and presentation of results. Differential thermal analysis and differential scanning calorimetry. Thermogravimetric analysis. Thermal analysis of metallic materials.

Assessment		Schedule ⁹	Percentage of the final grade (minimum grade) ¹⁰
Continuous assessment	Class tests along the semester		-
	Activity during laboratory works		Weeks 1-14
	Assignments		-
Final assessment	Final assessment form ¹¹	colloquium	70 %
	Examination procedures and conditions: 1. Subject with open questions; tasks: answer to open questions; working conditions: oral; percent of the final grade 100 %		

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

¹⁰ A minimum grade might be imposed for some assessment stages

¹¹ Exam or colloquium