

COURSE GUIDE – short form

Academic year 2017-2018

Course name ¹	Materials for Chemical and Alimentation Industry				Course code	4SM12DS			
Course type ²	DO	Category ³		Year of study	IV	Semester	7	Number of credit points	2

Faculty	Materials Science and Engineering	Number of teaching and learning hours ⁴					
Field	Materials engineering	Total	L	T	LB	P	IS
Specialization	Materials science	42	28		14		

Pre-requisites from the curriculum ⁵	Compulsory	not necessary
	Recommended	not necessary

General objective ⁶	Appropriate use of fundamental assessment criteria and methods for qualitatively and quantitatively identifying, analyzing and evaluating characteristic processes, manufacturing technology, properties and usability of materials for the chemical and food industry.
Specific objectives ⁷	Assimilation of fundamental knowledge related to the physical and chemical phenomena underlying the obtaining, analysis and characterization of steels, super-alloys castings and materials obtained by powder metallurgy, for the chemical and food industry.
Course description ⁸	<p>Manufacturing technology of steels used in the chemical and food industry.</p> <p>Chemical composition analysis of highly alloyed steel and manufacturing stages.</p> <p>Technology stages for the production and casting steel designated in the chemical and food industry.</p> <p>Stainless steels for the chemical and food industry</p> <p>Refractory steels for the chemical and food industries</p> <p>Cast iron for the chemical and food industry.</p> <p>Super-alloys for the chemical and food industry.</p> <p>Materials for the chemical and food industry obtained through powder metallurgy.</p> <p>Metallic materials for food packaging.</p> <p>Specific materials for the milk and meat products industry.</p>

Assessment		Schedule ⁹	Percentage of the final grade (minimum grade) ¹⁰
Continuous assessment	Class tests along the semester		%
	Activity during tutorials/laboratory works/projects/practical work	Practical test – 1h	50%
	Assignments		%
Final assessment	Final assessment form ¹¹	Colloquium	50%
	Examination procedures and conditions: 1. Oral evaluation with 2 open answer questions;		

Course organizer	Prof. dr. eng. Sergiu STANCIU
Teaching assistants	Prof. dr. eng. Sergiu STANCIU

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