C O U R S E G U I D E – s h o r t f o r m

Academic year 2017 - 2018

Course name[1]	**DIFFRACTOMETRY**					Codul disciplinei		**3 SM 15**	
Course type[2]	**DS**	Category[3]	**DI**	Year of study	3	Semester	**6**	Number of credit points	**3**

Faculty	Material Science and Engineering	Number of teaching and learning hours[4]					
Field	Materials Engineering	Total	L	T	LB	P	IS
Specialization	SM	**42**	**28**	**-**	**14**	**-**	

Pre-requisites from the curriculum[5]	Compulsory	Materials technology. Techniques of analysis in materials engineering
	Recommended	

General objective [6]	Assimilation of technical knowledge regarding the methods of diffractometric analysis, as well as knowledge of the parameters that can influence them
Specific objectives[7]	Combining the knowledge, principles and methods in the field technical sciences with graphical representations, to solve specific tasks. Optimal evaluation and solving of technical issues related to processed materials by applying concepts, theories and experimental methods
Course description[8]	X-ray production and properties, X-ray diffraction, Laue concept, Bragg concept. X-ray fluorescence analysis, X-ray topography, X-ray quantitative microanalysis, electron diffraction structure study, neutron diffraction structure study

Assessment			Schedule[9]	Percentage of the final grade (minimum grade)[10]
Continuous assessment	Class tests along the semester -		week -	- %
	Activity during tutorials/laboratory works/projects/practical work			50 %
	Assignments -		week	%
Final assessment	Final assessment form[11]	exam	exam period	50 % (minimum 5)
	Examination procedures and conditions: 1. Subject with closed questions ; tasks answer to closed questions ; working conditions oral; percent 50 %; 2. Subject with closed questions ; tasks answer to closed questions ; working conditions oral; percent 50 %; 3. - ; tasks - ; working conditions -; percent %;			

Course organizer	**Professor, Ph.D., Eng. Dorin LUCA**	
Teaching assistants	**Assistant Professor, Ph.D., Eng. Cătălin-Andrei ȚUGUI**	

[1] Course 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