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

Academic year 2024 - 2025

Course name[1]	**ELECTRONICS AND AUTOMATIONS**					Course code		2.IMAT.17 .DD-2	
Course type[2]	DID	Category[3]	DO	Year of study	2	Semester	4	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	75	28	-	14	-	33

Pre-requisites from the curriculum[5]	Compulsory	-
	Recommended	-

General objective [6]	-Students' acquiring of the theoretical and practical knowledge related to the automation elements and diagrams used in the automatized installations -Knowledge and use of passive electronic components and semiconductor electronic components in basic electronic circuits (rectifiers, amplifiers, oscillators)
Specific objectives[7]	• Application of knowledge, principles and methods studied and their association to the graphic presentations to solve tasks specific to the field • Defining and describing the technical principles and methods of the field by using graphic representations to solve specific tasks • Formation of a systemic thinking, able to correctly analyze the technological processes driven and to generate correct driving solutions from a functional and feasible point of view.
Course description[8]	Course material: characterization of electronic components and their use, presentation of the basic elements of an automated system, definition and presentation of some automatic adjustment systems using electrical, pneumatic and hydraulic equipment Lab work: theoretical applications in terms of recognizing and studying the automation elements and automatized installations.

Assesment			Sche-dule[9]	Percentage of the final grade (minimum grade)[10]
A. Final assessment form [11]: Exam	Class tests along the semester	%		60 % (minimum 5)
	Home works	%		
	Other activities	%		
	Examination procedures and conditions: Probe 1: working conditions; percent of the final grade 40 %; Probe 2: working conditions; percent of the final grade 30 %; Probe 3: working conditions; percent of the final grade 30 %;	100 % (mini-mum grade 5)	Exam period	
B. Seminar	Activity during seminar			% (minimum 5)

C. Laboratory	Acttvity during laboratory	40 % (minimum 5)
D. Project	Activity during project	% (minimum 5)

Course organizer	Assistant Professor PhD Maria BACIU	
Teaching assistants	Lecturer Mihai POPA	

[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