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]	MATERIALS AND ELECTRONIC DEVICES					Course code		4SM12DS	
Course type[2]	OD	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]	Obtaining technology aspects, properties and intended use of electronic materials and devices.
Specific objectives[7]	• Learning theoretical knowledge related to physical and chemical phenomena, based on materials proprieties used for electronic devices. • Achieving the ability to research and analyze electronic materials using a variety of research methods.
Course description[8]	The structure of the atom Electron occupation of atomic orbits. Electronic configuration Electro-magnetic properties of metallic materials. Soft ferromagnetic materials with normal hysteresis cycle. Nickel-iron alloys (perm-alloys). Iron-cobalt and iron-cobalt-nickel alloys. Ferromagnetic materials (soft ferrites). Hard magnetic materials. Metallic conductive materials. Semiconductors.

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		weeks 1 – 14	50%
	Assignments			%
Final assessment	Final assessment form[11]	colloquium	wek:14	50%
	Examination procedures and conditions: Oral evaluation, 2 questions with open answers in the course theme, with equal weight.			

Course organizer	Prof. dr. eng. Sergiu STANCIU	
Teaching assistants	Asist. dr. eng. Oana RUSU	