

COURSE GUIDE – short form

Academic year 2024-2025

Course name ¹	MATERIALE SEMICONDUCTOARE					Course code	4.SM.13. DS-1			
Course type ²	DO	Category ³	DS	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					50	14	-	14	-	22

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	<ul style="list-style-type: none"> 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.

Assesment			Schedule ⁹	Percentage in the final grade (minimum grade) ¹⁰
A. Final assessment form ¹¹ :	Class tests along the semester	%	week 14	50%
	Home works	%		
	Other activities	%		
	Examination procedures and conditions: Probe 1: Oral evaluation with 2 open answer questions;	100%		
Colloquium				
B. Seminar	Activity during seminar			0%
C. Laboratory	Acttivity during laboratory			50 %
D. Project	Activity during project			0%

Course organizer	Prof. dr. eng. Sergiu STANCIU	
Teaching assistants	Asist.dr.ing. Chereches Elena Ionela	

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