

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Electron Devices and Microsystems		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Dosimetry and Dosimeters		
Lecturer (for lectures)		Ristić S. Goran		
Lecturer/associate (for exercises)		Živanović N. Emilija		
Lecturer/associate (for OFE)				
Number of ECTS	5	Course status (obligatory/elective)	Elective	
Prerequisites				
Course objectives	Mastering the basic knowledge of ionizing and non-ionizing radiation, dosimetric size and units, and basic types of radiation dosimeters			
Course outcomes	Students' ability to apply acquired knowledge in professional work in conditions where elevated levels of radiation occur, as well as to successfully address the problem of dosimetry			
Course outline				
Theoretical teaching	Theoretical lectures will take place in the following areas: Sources and types of radiation, division of radiation. Ionizing radiation: particulate and electromagnetic, the law of radioactive decay, dosimetric variables and units, radiation interaction with matter, radiation effects on living matter, radiation detection. Principle of work and description of different types of dosimeters of ionizing radiation. Non-ionizing radiation (radio-frequency and optical): characteristics, variables and units, measuring and instruments for measuring the electric field, biological effects.			
Practical teaching (exercises, OFE, study and research)	Practical classes will take place through computational exercises. Solving concrete problems will enable students to acquire some practical knowledge.			
Textbooks/references				
1	G. Ristić, Dosimetry and dosimeters, script, Faculty of Electronic Engineering, Niš (in Serbian)			
2				
3				
4				
5				
Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
2	2	0	0	0
Teaching methods	Lectures, computational exercises and consultations			
Grade (maximum number of points 100)				
Pre-exam duties	Points	Final exam		Points
Activity during lectures		Written exam		35
Exercises		Oral exam		35
Colloquia				
Projects	30			