

## Specification for the book of courses

<b>Study program</b>	Electrical Engineering and Computer Science			
<b>Module</b>	Common			
<b>Type and level of studies</b>	Doctoral studies			
<b>The name of the course</b>	Photonics			
<b>Lecturer (for lectures)</b>	Golubović M. Snežana			
<b>Lecturer/associate (for exercises)</b>				
<b>Lecturer/associate (for OFE)</b>				
<b>Number of ECTS</b>	10	<b>Course status (obligatory/elective)</b>	Elective	
<b>Prerequisites</b>				
<b>Course objectives</b>	Ensuring the understanding of the dual nature of light and its characteristics (generation, transport, monitoring, detection and application).			
<b>Course outcomes</b>	Training for work in the field of photonics and its related fields (electronic optics, optoelectronics), understanding of the vital role of light in a wide range of domains, with the possibility of developing and mastering new techniques and skills.			
<b>Course outline</b>				
<b>Theoretical teaching</b>	The dualism. Electromagnetic nature of light. Interference, diffraction and polarization. The interaction of light and matter. Corpuscular nature of light and other electromagnetic radiation. Photoelectric and Compton effect. Optical instruments. Non-laser and laser light.			
<b>Practical teaching (exercises, OFE, study and research)</b>				
<b>Textbooks/references</b>				
1	D.V. Sivuhin, Optics, Moscow, 1980 (in Russian)			
2	Mark Fox, Optical Properties of Solids, Sheffield, 2001			
3				
4				
5				
<b>Number of classes of active education per week during semester/trimester/year</b>				
<b>Lectures</b>	<b>Exercises</b>	<b>OFE</b>	<b>Study and research work</b>	<b>Other classes</b>
3	0	0	0	0
<b>Teaching methods</b>	Lectures, exercises, consultations.			
<b>Grade (maximum number of points 100)</b>				
<b>Pre-exam duties</b>	<b>Points</b>	<b>Final exam</b>	<b>Points</b>	
<b>Activity during lectures</b>		<b>Written exam</b>		
<b>Exercises</b>		<b>Oral exam</b>	50	
<b>Colloquia</b>				
<b>Projects</b>	50			