

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Electrical Power Engineering		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Electrical Instalations and Lighting		
Lecturer (for lectures)		Janjić D. Aleksandar		
Lecturer/associate (for exercises)		Vučković D. Dragan		
Lecturer/associate (for OFE)		Vučković D. Dragan		
Number of ECTS	6	Course status (obligatory/elective)	Obligatory	
Prerequisites				
Course objectives				
The aim of the subject is to provide students with basic knowledge of design, construction and verification of low voltage electrical installation. Introduction to basic photometry values, different ways to produce light, basic criteria for design and verification of indoor and outdoor lighting.				
Course outcomes				
Students will be trained for tasks of desing and verification of electrical instalations and lighting instalation of internal spaces.				
Course outline				
Theoretical teaching				
Introduction, classification and definition of the basic concepts. Technical and electrical regulations. Technical documentation. General characteristics of electrical installations in buildings, classification and general calculations. Basic components for electrical, tools and equipment. Project design and notification. Verification of the designed lighting devices. Illumination and photometric measurements. The procedures and method of verification features, performance and quality installations. Electrical installation of "intelligent" objects. Labs: Exercises measuring electrical quantities; demonstration software for lighting design, preparation of project design of electrical installations				
Practical teaching (exercises, OFE, study and research)				
Measurement of insulation resistance. Measurement of large currents with current clamps. Automatic switching in TN and TT systems of protection. Measurement of earth electrode resistance. The specific resistance of soil. Testing of the galvanic continuity of the protective conductor.				
Textbooks/references				
1	M. Kostic "Theory and practice of electrical instalation desing" (in serbian) Академска мисао Београд, 2005			
2	Serbian institut for standardization „Collected standards“			
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	1	0	0
Teaching methods				
Teaching and computational examples are performed by lecturing, on a board. Students are doing their works independently, with the assistant supervision. Consultations.				
Grade (maximum number of points 100)				
Pre-exam duties		Points	Final exam	Points
Activity during lectures			Written exam	30
Exercises		5	Oral exam	20
Colloquia		30		
Projects		15		