

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		Technical Documentation		
Lecturer (for lectures)		Davidović S. Vojkan		
Lecturer/associate (for exercises)		Davidović S. Vojkan		
Lecturer/associate (for OFE)				
Number of ECTS		2	Course status (obligatory/elective)	Elective
Prerequisites				
Course objectives				
The objective of the course is to acquire the necessary level of knowledge for: (1) Understanding the technical documentation of the lowest level of complexity - electronic components (resistors, capacitors, coils, diode, transistors, integrated circuits), so-called. datasheet; (2) Understanding the technical documentation of more complex devices (typically measurement instruments, which are most often encountered in engineering practice, power source, multimeter, signal generator, oscilloscope), as well as quickly finding solutions according to certain requirements or problems; (3) Finding relevant informations both in user and service manuals; (4) Independently creating certain technical documentation to potential beneficiaries for a practical project realized independently or teamally as a task from another subject.				
Course outcomes				
The student has the necessary level of knowledge and experience: - to successfully consult technical documentation of electronic components (datasheet), to find the necessary parameters, and to understand graphics and table contents, - to understand the technical documentation of measuring devices, to find in the user's manual the necessary data for solving the problem or achieving the given target, - to understand service manual for equipment that can be serviced, to find appropriate physical positions, to understand the connection between blocks using the given example, - finally, he is able to make a user or service manual for the device he or she has realized independently or in the team, clearly enough to be easily understood by technically educated people				
Course outline				
Technical documentation of the components (datasheet), resistors, capacitors, coils, transistors, power devices, optocomponents, integrated circuits, connectors, coolers, printed circuit boards, etc. Electrical parameters, I-V characteristics, temperature characteristics, dynamic characteristics, characteristics of package and physical dimensions, relevant parameters for industrial assembly, maximum permitted loads. User and service manuals (analysis of document organization, presented schemas and tables) of measuring instruments (power sources, multimeters, signal generators, oscilloscopes) of world reputed manufacturers (Tektronix, Agilent, Rigol, Keysight). Users manuals of development kits (UNI DS3, EasyPIC5, Arduino, Altium).				
Theoretical teaching				
Use of user manuals - laboratory work with measuring instruments and development kits.				
Practical teaching (exercises, OFE, study and research)				
Textbooks/references				
1	Technical documentation of components (datasheets), available in catalog and on the Internet			
2	Technical documentation of laboratory instruments (Tektronix, Agilent, Rigol, Keysight)			
3	Technical documentation of development kits (UNI DS3, EasyPIC5, Arduino, Altium)			
4	Katherine Haramundanis, The Art of Technical Documentation, Elsevier, 2014, ISBN 9781483184012			
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Number of classes of active education per week during semester/trimester/year				
Lectures	Exercises	OFE	Study and research work	Other classes
1	1	0	0	0
Teaching methods				
Lectures using PowerPoint presentations, practical lessons, consultations				
Grade (maximum number of points 100)				
Pre-exam duties		Points	Final exam	Points

Activity during lectures	10	Written exam	20
Exercises	30	Oral exam	20
Colloquia			
Projects	20		