

Specification for the book of courses

Study program		Electrical Engineering and Computer Science		
Module		Communications and Information Technologies - System Engineering and Radio-Communications		
Type and level of studies		Undergraduate Academic Studies		
The name of the course		Computer Communications and Internet Access		
Lecturer (for lectures)		Stanković Ž. Zoran, Dončov S. Nebojša		
Lecturer/associate (for exercises)		Milijić R. Marija		
Lecturer/associate (for OFE)		Milijić R. Marija		
Number of ECTS	6	Course status (obligatory/elective)	Obligatory	
Prerequisites				
The acquisition of theoretical and practical knowledge related to the use of computers in the realization of modern communication services as well as theoretical and practical knowledge of Internet access techniques.				
Course objectives				
Knowledge of current methods and techniques of establishing a reliable communication at various levels of the TCP/IP communication model. Knowledge of the practical implementation of various communication protocols, servicec and network architectures that are used to Internet access.				
Course outcomes				
The acquisition of theoretical and practical knowledge related to the use of computers in the realization of modern communication services as well as theoretical and practical knowledge of Internet access techniques.				
Course outline				
The computer as a communication device. TCP/IP communication model. Physical layer of data transfer in computer communications. Standard electrical interfaces of physical communication layer. Modem communications and broadband Internet access. PPP Internet Protocol. Communications systems based on the IEEE 802.3 standard. IP communications. IP communications infrastructure for Internet access. Devices for Internet access realization. Transport layer protocols and services. TCP communication. Application layer in telecommunications for Internet access. Modern telecommunications services and Internet.				
Theoretical teaching				
Auditory exercises: Solving practical problems related to the data transfer between communication devices in the Internet environment. Laboratory exercises: Working with simulators of the network communication environment. Practical work with basic network devices for Internet access.				
Practical teaching (exercises, OFE, study and research)				
Textbooks/references				
1	V. Stallins, Data & Computer Communications, 10th edition, Pearson Education Limited, 2013.			
2	D. Comer, Internetworking with TCP/IP, CET Biblioteka, 2001.			
3	A. Tanenbaum, D. Wetherall, Computer Networks, 5th edition, Mikro knjiga, 2013.			
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				
Lectures, auditory exercises, practical laboratory work, project, consultations, homework.				
Grade (maximum number of points 100)				
Pre-exam duties		Points	Final exam	
Activity during lectures		5	Written exam	
Exercises		15	Oral exam	
Colloquia		40		
Projects				