

Course Unit Descriptor

Study Programme: Power, Electronic and Telecommunication Engineering (Telecommunication Systems)			
Course Unit Title: Telecommunication Network and Service Management			
Course Unit Code: EK540			
Name of Lecturer(s): Boris Antić			
Type and Level of Studies: Master Academic Degree			
Course Status (compulsory/elective): compulsory			
Semester (winter/summer): winter			
Language of instruction: english			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated:			
Prerequisites: none			
Course Aims: Students become familiar with the field of telecommunication network and service management. They learn how to apply specific standards. The design of controlled network resource models. The study of the operation of telecom operators and the optimization techniques. The design of simple controllable objects management system models.			
Learning Outcomes: Students will learn how to manage the telecommunication network and services. They will understand the types of organization of the maintenance and control. They will understand how to apply standards of international organizations in the field of communication network and service management. They will learn the basics of management platform planning. Students will learn how to devise business processes of telecom operators and service providers by using the telecom process map and they will acquire skills of user profiling. Students will be able to understand the service providing process and the possibility of operation optimization.			
Syllabus: Introduction: Changing the maintenance philosophy to suit the management concept (the philosophy of network and service maintenance, the management concept, telecommunication processes, international organizations and standards in the field of network and service management). Principles of management in telecommunications (TMN principles, management tools, protocols, management realization platforms, ITU-T recommendations). The application of concepts of network and service management (SDH management, ATM management, GSM and UMTS management, service management, defining the business process of telecom operators and service providers, business process planning using the telecom process map). The role of processes and sub-processes in the reorganization of telecom operators (business process re-engineering).			
Required Reading: Relevant literature in English TBD			
Weekly Contact Hours: 4	Lectures: 2	Practical work: 2	
Teaching Methods: Lectures. Auditory practice. Tutorial work			
Knowledge Assessment (maximum of 100 points): 100			
Pre-exam obligations	points	Final exam	points
Lecture attendance	5	Oral part of the exam	50
Colloquium exam	30		

Homework	15		
Test	10		
Test	10		
Test	10		

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.