

Course title: IP Networks Administration
Course code: 50060
ECTS credits: 6
Requirements: None
Basic information
Level of studies: Master applied studies
Year of study: 2
Trimester: 6
Goal: Broadening knowledge acquired in two courses - IP Local Networks and Advanced Routing Techniques, related to solving problems in LAN / WAN network management and maintenance.
Outcome: Upon completion of the course, students should be able to solve complex problems in IP networks and broaden their knowledge acquired in two courses - IP Local Networks and Advanced Routing Techniques.
Contents of the course
Theoretical instruction
1. Introduction to network maintenance
2. Troubleshooting processes
3. Maintenance and troubleshooting toolbox
4. Basic and advanced Cisco catalyst switch troubleshooting
4. VLAN access control lists
5. Introduction to troubleshooting routing protocols
6. OSPF and route redistribution troubleshooting
7. Troubleshooting security
8. Troubleshooting advanced services
9. Large enterprise network troubleshooting
Practical instruction (Problem solving sessions/Lab work/Practical training)
1. Structured troubleshooting
2. Network maintenance tasks and best practices
3. Basic switching and routing processes and effective IOS troubleshooting commands
4. Using specialized maintenance and troubleshooting tools

5. Troubleshooting case studies
Textbooks and References
1. Kevin Wallace, CCNP TSHOOT 642-832, Official Certification Guide
2. Brent Stewart, CCNP TSHOOT 642-832, Quick Reference
Number of active classes (weekly)
Lectures: 3
Practical classes: 2
Other types of classes: 1
Grading (maximum number of points: 100)
Pre-exam obligations: Points
Activities during lectures: 0
Activities on practical exercises: 50
Seminary work: 0
Colloquium: 20
Final exam: Points
Written exam: 30
Oral exam: 0
Lecturer: Milan Pavlović, PhD
Associates: Marija Zajeganović, MSc and Radovan Mitričević