

Course title: Computer Networks 1
Course code: 50050
ECTS credits: 5
Requirements: None
Basic information
Level of studies: Undergraduate applied studies
Year of study: 3
Trimester: 7
Goal: Introducing the basic principles of routing protocols and fundamentals of router and switch performance and maintenance.
Outcome: Students should be able to define and describe the basic principles of routing and switching in computer networks as well as to explain switch and router performance.
Contents of the course
Theoretical instruction
1. Dynamic routing protocols
2. Link-state routing protocols
3. OSPF
4. EIGRP
5. Switch, virtual LANs
6. Inter VLAN routing
7. DHCP
8. NAT
9. Access lists
Practical instruction (Problem solving sessions/Lab work/Practical training)
1. Subnetting (VLSM, CIDR)
2. Route summarization
3. Implementing standard access lists
4. Implementing extended access lists
Textbooks and References

1. J. F. Kurose, K. W. Ross, Умрежавање рачунара од врха ка дну са Интернетом у фокусу, превод шестог издања, РАФ Рачунарски факултет, Београд, CET Computer Equipment and Trade, Београд, 2013, оригинално издање: Computer Networking: A Top-Down Approach Featuring the Internet, Pearson Education, Inc., 2013.
2. W. Odom, "CCNA Routing and Switching 200-125 Official Cert Guide Library", Cisco Press, 2016, ISBN-10: 1-58720-581-5
3. Cisco Networking Academy, "Connecting Networks Companion Guide", Cisco Press, 2014, ISBN-10: 1-58713-332-6
4. M. Pavlović, M. Kragović, M. Zajeganović, "Praktikum iz računarskih mreža", Visoka ICT škola, Beograd 2013
Number of active classes (weekly)
Lectures: 3
Practical classes: 2
Other types of classes: 0
Grading (maximum number of points: 100)
Pre-exam obligations: Points
Activities during lectures: 10
Activities on practical exercises: 0
Seminary work: 0
Colloquium: 40
Final exam: Points
Written exam: 50
Oral exam: 0
Lecturer: Milan Pavlović, PhD
Associate: Nikola Kurbalija