

<b>Course title: IP Local Networks</b>
Course code: 50059
ECTS credits: 6
Requirements: None
<b>Basic information</b>
Level of studies: Master applied studies
Year of study: 2
Trimester: 4
Goal: Acquainting students with the basic and advanced traffic forwarding techniques in local computer networks.
Outcome: Upon completion of the course, students should be able to install, configure and monitor equipment in local computer networks.
<b>Contents of the course</b>
Theoretical instruction
1. The basic principles of VLAN environment
2. Preventing loops at the second layer of the OSI model
3. Private VLANs
4. Layer 2 security
5. InterVLAN routing
6. Layer 3 security
7. The basics of FHRP protocols (HSRP, VRRP, GLBP)
Practical instruction (Problem solving sessions/Lab work/Practical training)
1. Creating and establishing connectivity between workstations in a local computer network.
2. Testing basic and advanced functions of network equipment at layer 2 of the OSI model.
<b>Textbooks and References</b>

1. James F. Kurose, Keith W. Ross, Умрежавање рачунара од врха ка дну са Интернетом у фокусу, превод трећег издања, РАФ Рачунарски факултет, Београд, СЕТ Computer Equipment and Trade, Београд, 2005, оригинално издање: Computer Networking: A Top-Down Approach Featuring the Internet, Pearson Education, Inc., 2005.

2. Douglas E. Comer, Povezivanje mreža – TCP/IP: Принципи, протоколи и архитектуре, превод четвртог издања, СЕТ Computer Equipment and Trade, 2001, Београд, оригинално издање: Internetworking with TCP/IP, Vol I: Principles, Protocols, and Architecture, Fourth Edition, Prentice Hall, Inc., 2000.

3. Richard Deal, CCNA-Cisco Certified Network Associate Study Guide, McGraw-Hill, 2008.

4. Henry Benjamin, CCNP Practical Studies: Routing, Cisco Press, 2002.

**Number of active classes (weekly)**

Lectures: 4

Practical classes: 2

Other types of classes: 0

**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