

<b>Course title: Linux System Administration</b>
Course code: 61040
ECTS credits: 8
Requirements: None
<b>Basic information</b>
Level of studies: Undergraduate applied studies
Year of study: 2
Trimester: 6
Goal: Problem-solving in computer network administration on Linux operating systems.
Outcome: Students should be able to independently install, configure, maintain and optimize server performance as well as the other elements of a computer network in Linux environment.
<b>Contents of the course</b>
Theoretical instruction
1. Basic principles of system administration
2. Linux command line
3. Process management
4. Linux File System
5. Software Installation in Linux
6. Managing users and groups
7. Storage administration
8. Software RAID
9. Archiving and backup
10. Managing services
11. Writing shell scripts
12. Fundamentals of the Internet Protocol
13. Network configuration
14. Firewall configuration
15. Network file system
16. Basic DNS server configuration
17. DHCP configuration
18. Installing and configuring Linux mail server

19. Linux cert management
20. System monitoring
21. Virtualization
Practical instruction (Problem solving sessions/Lab work/Practical training)
1. Linux OS installation and configuration
2. Creating and configuring user accounts
3. Mastering package managers and software repositories
4. Managing disk quotas
5. Syslog and log files
6. Scheduling administrative tasks
7. Writing and debugging scripts
8. Linux networking tools
9. Managing printers
10. Installing and configuring DHCP server
11. Installing and configuring DNS
12. Sendmail configuration
13. System security
14. Linux containers and virtualization
<b>Textbooks and References</b>
1. William E. Shotts Jr., The Linux command line, No Starch Press, 2012
2. Evi Nemeth, Garth Snyder, Trent R. Hein, Linux Administration Handbook, Prentice Hall
<b>Number of active classes (weekly)</b>
Lectures: 4
Practical classes: 3
Other types of classes: 1
<b>Grading (maximum number of points: 100)</b>
<b>Pre-exam obligations: Points</b>
Activities during lectures:
Activities on practical exercises: 20
Seminary work:
Colloquium: 30
<b>Final exam: Points</b>
Written exam: 50

Oral exam:
<b>Lecturer: Goran Zajić, PhD</b>
<b>Associate: Slobodan Čabarkapa</b>