

Course title: Computer systems administration

Course code	Course status	Semester	Number of ECTS credits	Lecture hours
132004204	Mandatory	IV	6	3+0+1

Study program: Basic applied studies, ELECTRICAL ENGINEERING, study program: Computer engineering (studies last for 6 semesters, 180 ECTS credits).

Prerequisites: No prerequisites required.

Course aims: Through this course students are introduced with principles of selection, construction, administration and improvement of the computer systems. Administration principles of the computer systems, based on the two most popular operating systems (OS): Windows and Linux are studied in details. For these two OSs, students learn details of administration, starting from hardware platform selection, OS source, installation, configuration, connecting in computer network, creating an user accounts and groups, configuration of network resources, system and data protection, up to monitoring and optimization.

Teacher(s) and assistant(s): Ph.D. Božo Krstajić, assistant professor – teacher, Dipl. ing. Vladan Mijović - assistant, Dipl. ing. Dejan Abazović – assistant.

Teaching method: Lectures and laboratory exercises organized in computer classroom/laboratory. Studying and individual doing home exercises. Consultations.

Course synopsis:

Preliminary weeks	Preparation and semester enrolment.
I week	Introduction. Needs and importance of computer systems administration. An overview of necessary activities.
II week	Hardware platform selection (minimum and optimum hardware requirements). Introduction and W2K installation.
III week	Superuser-Administrator, system configuration, network configuration.
IV week	User accounts and groups (local and domain), access privileges in NTFS.
V week	Configuration and administration of network resources.
VI week	First test
VII week	Free week
VIII week	Data protection (backup – restore procedures, UPS, safety mistakes and “patches”). Current administration and maintenance (log files, monitoring, optimization) and improvement of comp. systems.
IX week	Introduction to Linux. Linux installation and primary adjustments. Root account.
X week	Configuration files. System and network configuration.
XI week	Creating user accounts and groups. Access privileges.
XII week	Second test
XIII week	Configuration and administration of network resources..
XIV week	Data protection (backup – restore procedures, UPS, safety mistakes and “patches”).
XV week	Current administration and maintenance (log files, monitoring, optimization) and improvement of computer systems.
XVI week	Final exam
Final week	Administrative procedures.
XVIII-XXI week	Additional lessons, correction of the final exam and administrative procedures.

STUDENT WORKLOAD

<u>per week</u>	<u>per semester</u>
6 credits x 40/30 = 8 hours	Teaching and the final exam: (8 h) x 16 = 128 h
Working hours structure:	Necessary preparation (before semester): 2 x (8 h) = 16 h
3 hours for teaching	Total work hours for the course: 6 x 30 hours = 180 hours
1 hour for laboratory exercises	Additional hours for preparing correction of the final exam, including the exam taking: up to 36 hours (the rest of the time from the first two items, up to the total work hours for the course, 180 hours).
4 hours for individual work, including consultations.	Work hours structure:
	128 h (lectures) + 16 h (preparation) + 36 hours (additional work)

Lessons attendance is mandatory for students, as well as doing home and laboratory exercises and both tests.

Literature: Basic: Implementing MS W2K Professional and Server (Material No: 2152) (obrada B. Krstajić)
D. de Kok, Slackware Linux Basics. (obrada B. Krstajić)
Additional: B. Krstajić: "Operativni sistemi"
Z. Uskoković, B. Krstajić, R. Puzović, D. Ojdanić, A. Vučinić: "Operativni sistemi".
Internet literature, CD for e-learning.

The forms of knowledge testing and grading:

- 10 laboratory exercises carry 10 points total (1 point each).
- Each test carries 20 points (40 points total).
- Final exam carries 50 points.

Student gets the passing grade by collecting 50.1 points at least.

Special remarks for the course: The teaching is organized for student groups of about 100 students, and laboratory exercises for student groups with 60 students. If needed, the course can also be taught in English.

Teacher(s) who provided the information: Ph.D. Božo Krstajić, assistant professor

Remark: Literature, teaching materials, exercises and all informations are available at www.os.cg.ac.yu