

Linux operating system

Course Workload		Assessment form (examination/ graded test/ ungraded test)
ECTS	Hours	
3	108	Graded test

The course introduces the basic concepts of the Linux operating system and essential skills for working with it. The presentation is accompanied by numerous practical examples. This course can be considered as a textbook for students beginning their studies in computer science who are not yet familiar with the Linux OS. It consists of two main parts: The first part introduces the basic concepts and skills needed by users to start working effectively in Linux. It covers topics such as users from the system's perspective, the concept of the terminal, working with the command line, file system devices and working with them, access rights in Linux, shell capabilities, and text editors. The second part is focused on the concepts and skills required for Linux system administration. This includes a discussion of the system boot process, technologies for working with external devices, file systems, and networks in Linux, system administration using configuration files and package management

Course structure:

1. User Interface of the Operating Environment

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- 1.1. Operating environment software
 - 1.2. File types and file systems
 - 1.3. System commands and system utilities

2. Process and Task Management

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- 2.1. Stream editors and system utilities
 - 2.2. Scripting languages and command files

3. Programmable Command Interpreters

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- 3.1. Kernel of the operating system

4. Programming in the Operating Environment

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- 4.1. UNIX programming environment
 - 4.2. System call interface