



Erasmus Course
Linux System Administration
 Description

Vasil Levski National Military University
 Doc.: ES/2021/08
 Date: 14-08-2021
 Origin: BG VELIKO02

Country BULGARIA	Institution Vasil Levski National Military University	Course Linux System Administration	ECTS 5.0
Service All Languages English, Bulgarian	Minimum Qualification for Lecturers <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG 6001 Level 2. Adequate pedagogical and psychological competences. Teaching is committed to creating a basis for shell scripting, user management, navigating the filesystem, network configuration and OS security. Thorough knowledge of the topic taught. 		
Prerequisites for international participants: <ul style="list-style-type: none"> English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. Knowledge of Operational Systems and Computer Networks 		Goal of the Course: <ul style="list-style-type: none"> Gain knowledge of open-source applications in the workplace as they relate to closed source equivalents. Learn basic concepts of hardware, processes, programs and the components of the Linux Operating System. Gain skills on how to work on the command line and with files. Gain skills on how to create and restore compressed backups and archives. Knowledge of how to secure the OS, users/groups and file permissions for public and private directories. 	

Learning outcomes	Knowledge	<ul style="list-style-type: none"> The structure of the OS. Linux Environment. Knowledge for open/closed-source applications philosophy. Basic knowledge about network configuration. Knowledge for users and groups management. Ownership and permissions. Security fundamentals
	Skills	<ul style="list-style-type: none"> To work with the command line. To design basic scripts. User management skills. To navigate the filesystem. To manage files and directories. To create and restore compressed backups and archives. To manage ownership and permissions. To secure users and OS.
	Competences	<ul style="list-style-type: none"> Describe the principles of OS administration. Capability of maintaining and managing OS users and groups. Capability to secure the OS and users from malicious attacks. Configure basic network services. Create basic shell scripts. Able to provide the required level of security of stored data in terms of



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		access and protection of information.
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Verification of learning outcomes <ul style="list-style-type: none">• Tests: At the end of each topic of the course students must complete specific midterm exam.• Project: Practical Lab Challenges.

Course Details		
Main Topic	Recommended WH	Details
Introduction to Linux	24	<ul style="list-style-type: none">• Introduction to Linux• Operating Systems• Working in Linux• Open-Source Software and Licensing• Command Line Skills• Getting Help• Navigating the Filesystem• Managing Files and Directories• Archiving and Compression• Midterm Exam
Linux Essentials	36	<ul style="list-style-type: none">• Working with Text• Basic Scripting• Understanding Computer Hardware• Where Data is Stored• Network Configuration• System and User Security• Creating Users and Groups• Ownership and Permissions• Special Directories and Files• Final Exam
Total	60	