EC-COUNCIL UNIVERSITY

CENTER OF PROFESSIONAL EDUCATION

Your Pathway to Continuous Professional Education in
Linux Administration

Course Overview

In today's rapidly evolving tech landscape, the adoption of Linux in cloud computing, DevOps, and enterprise environments has surged, significantly increasing the demand for skilled Linux system administrators. Despite this growing need, there is a pronounced skills gap, with many IT professionals lacking the comprehensive expertise required to manage and secure Linux environments effectively. This shortage can lead to increased downtime, security vulnerabilities, and inefficient system management.

The demand for Linux professionals is high, with 92% of hiring managers actively seeking individuals with Linux skills. Linux powers the majority of cloud infrastructure, with platforms like AWS, Azure, and Google Cloud heavily relying on Linux systems. Without proficient Linux administrators, organizations face risks such as increased downtime, security breaches, and inefficiencies in system management and deployment.

This course addresses the challenge of acquiring these skills by offering a structured, practical approach to mastering Linux and Bash scripting from the ground up. The course covers a comprehensive range of topics, from Linux's evolution to practical lab-building, Linux CLI navigation, file management, and permissions. You will explore advanced command-line techniques, bash scripting, control structures, system administration, user management, process monitoring, network configuration, and security practices.

By the end of this course, you would have gained practical, hands-on experience and the confidence to efficiently navigate the Linux CLI, write and debug robust Bash scripts, and manage and secure Linux systems. You will be well-prepared for roles such as a Linux Systems Administrator and other advanced positions in the cyber industry.

Course Highlights

Hands-On Learning with Labs and Challenges
Engage in practical simulated learning environments that challenge you with real-world scenarios and applications.

Domain Expertise
Equip yourself for roles that require expertise in Linux administration. This course covers basic to advanced topics in this field.

Learning from ECCU Faculty and Industry Experts
Benefit from the expertise of ECCU faculty and industry-leading professionals who bring current, real-world insights into your learning.

Flexible Learning Options, Online
Our courses are delivered online and are designed to fit your busy schedule.

Global Network of Cybersecurity Professionals
Join a community of highly motivated individuals who share your passion for cybersecurity and professional growth.

Scalable Skills for Career Advancement
Gain reusable skills to excel in the ever-evolving tech landscape.

What You Will Learn

Learning Linux history, advantages, and common use cases

Building your own labs for practical insights

Mastering terminal emulators, commands, navigation, and permissions

Gaining hands-on experience in Linux CLI navigation

Applying data sorting, regex, and text processing techniques

Writing, executing, and debugging efficient Bash scripts

Diving deep dive into Bash scripting: strings, loops, error handling

Managing users, groups, files, processes, and networks

Using advanced command-line tips and practical examples

Creating Bash scripts to automate and maintain systems

Syllabus

Take a look at the comprehensive modules of this course.

Module 01: Creating and Building the Lab

- Learning the history and evolution of Linux, the advantages and common use cases of Bash scripting, and the role of Linux in information security.
- Gaining practical insights by building your own labs.

Module 02: Navigating the Shell and Basic Commands

- Understanding terminal emulators, basic command syntax, file system navigation, file and directory manipulation, permissions and ownership, input and output redirection, and command-line tips and tricks.
- Gaining hands-on experience in efficiently navigating and operating within the Linux CLI environment.

Module 03: Advanced Command Line

- Applying sorting and filtering data, regular expressions, advanced text processing, data extraction and reporting, text editing and transformation, and working with file globbing and wildcards.


Module 04: Bash Scripting Basics

- Learning to write, execute, and debug efficient Bash scripts for various applications.
- Deep diving into Bash scripting, including strings and variables, conditionals, loops, functions, error handling, and interactive scripts.

Module 05: Linux Administration

- Analyzing user and group management, file system management, process management, system configuration, network management, security administration, and automation through scripting.
- Evaluating advanced command-line tips and tricks and examining practical examples and case studies to solidify your understanding and skills.
- Creating Bash scripts and automating system tasks to maintain Linux systems efficiently.

Certificate of Achievement

On successfully completing this course, you will receive a certificate of achievement from the EC-Council University Center of Professional Education that adds a competitive edge to your resume.
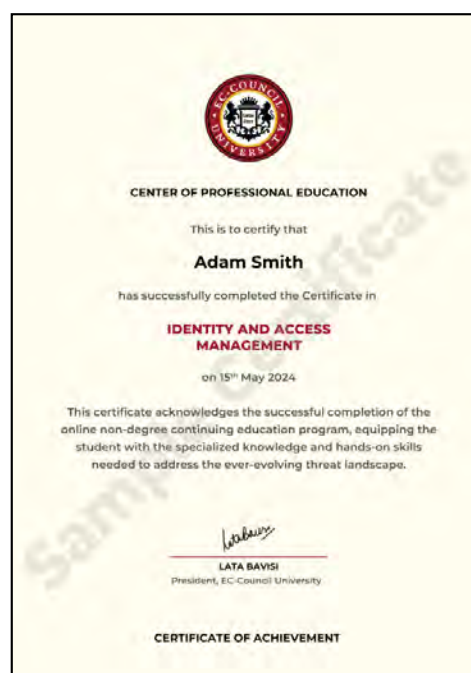
Get Ready for Diverse Job Roles with Your Professional Certificate Course

- **Linux System Administrator:** Manages Linux systems and user accounts

- **Network Administrator:** Maintains and secures network devices

- **DevOps Engineer:** Automates deployment processes

- **Cloud Architect:** Designs and manages cloud infrastructure

- **Security Engineer:** Implements and monitors security measures

About EC-Council University
Center of Professional Education

In an era where cyber threats are constantly evolving and becoming increasingly sophisticated, the need for specialized education and training has never been more critical. To meet this demand, EC-Council University established the Center of Professional Learning to offer online non-degree continuing education courses and lifelong learning opportunities for IT and cybersecurity professionals, worldwide. These courses offer maximum flexibility for working professionals to enhance their skills and further their cybersecurity careers with a non-credit certificate from EC-Council University.

About EC-Council University

EC-Council University is an accredited online institution and part of the EC-Council group, prioritizing ethical behavior, innovative thinking, scholarship, and leadership. Offering asynchronous programs with live learning components in cybersecurity, ECCU aims to enhance the learning experience and drive excellence in cybersecurity education.

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Ready to deep dive into Linux Administration?

Enroll in This Course Now