

uCertify

Course Outline

Linux Essentials for Cybersecurity Pearson uCertify



25 Apr 2024

1. Course Objective
2. Expert Instructor-Led Training
3. ADA Compliant & JAWS Compatible Platform
4. State of the Art Educator Tools
5. Award Winning Learning Platform (LMS)
6. Live labs

Lab Tasks

Here's what you get

1. Course Objective

Learn the skills required for Linux professionals with Linux Essentials for Cybersecurity live-labs. Live-labs are simulators that provide a virtual environment for users to explore and learn. Linux Essentials for Cybersecurity labs are based on a typical ground-up approach with a unique methodology of always keeping an eye on security. Throughout the labs, users will find references to security issues and a strong emphasis is placed on creating security policies. The labs are designed for the users who want use Linux systems in a better way and ensure that the Linux systems that they work on are as secure as possible.

2. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

3. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

4. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

5. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**

1. Best Postsecondary Learning Solution

- **2015**

1. Best Education Solution
2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution

6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

6. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device

- Break and Reset functionality
- No hardware costs

Lab Tasks

Distributions and Key Components

- Installing Kali Linux
- Installing Ubuntu
- Installing CentOS

Working on the Command Line

- Managing Files Using the Command Line
- Using Shell Features
- Compressing Files

Getting Help

- Getting Help Using the man Command
- Getting Help Using the info Command

Editing Files

- Editing Files using the Vim Editor

When Things Go Wrong

- Troubleshooting Linux Issues
- Configuring User Notifications

Managing Group Accounts

- Managing Group Accounts
- Managing Group Administrators

Managing User Accounts

- Managing User Accounts
- Securing User Accounts
- Configuring sudo

Develop an Account Security Policy

- Developing an Account Security Policy
- Testing the Security of Accounts

File Permissions

- Managing File Permissions
- Managing Special Permissions
- Enabling Access Control Lists
- Managing File Ownership and Attributes
- Monitoring Security Issues with SELinux

Manage Local Storage: Essentials

- Creating Partitions and Filesystems
- Mounting Filesystems at Boot
- Managing Swap Devices

Manage Local Storage: Advanced Features

- Managing Encrypted Filesystems
- Managing Hard and Soft Links

Manage Network Storage

- Configuring Samba
- Administering NFS

Develop a Storage Security Policy

- Backing Up a Filesystem

- Developing a Backup Security Policy

crontab and at

- Managing crontab
- Configuring at Commands

Scripting

- Using the Bash Shell Script to Display System Info
- Validating the User Input

Common Automation Tasks

- Performing a System Check
- Using Script that will Back Up All the Files

Develop an Automation Security Policy

- Securing crontab and at
- Creating an Automation of Security Policy

Networking Basics

- Obtaining the Standard Ports for the Protocols

Network Configuration

- Understanding Network Configuration on CentOS
- Understanding Network Configuration on Ubuntu

Network Service Configuration: Essential Services

- Configuring a BIND Server
- Configuring a Postfix Server

Network Service Configuration: Web Services

- Configuring and Administering an Apache Server

- Configuring a Proxy Server

Connecting to Remote Systems

- Configuring an FTP Server
- Administering an SSH Server

Develop a Network Security Policy

- Administering Kernel Security Parameters
- Securing a System with TCP Wrappers
- Configuring Network Time Protocol
- Creating a Networking Security Policy

Process Control

- Managing System Processes
- Displaying System Information

System Logging

- Managing Log Files
- Configuring Log Rotation

Red Hat-Based Software Management

- Managing Software Packages with rpm
- Managing Software Packages with yum

Debian-Based Software Management

- Managing Software Packages with dpkg

System Booting

- Configuring GRUB Security
- Managing the Startup Process

Develop a Software Management Security Policy

- Exploring Common Vulnerabilities and Exposure Reports
- Managing and Securing Legacy Services

Footprinting

- Using Probing Tools
- Scanning the Network

Firewalls

- Configuring Linux Firewall using iptable

Intrusion Detection

- Examining an Intrusion Detection Security Policy

Additional Security Tasks

- Configuring fail2ban
- Encrypting Files with gpg

Here's what you get

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LIVE LABS

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