uCertify

Course Outline

Kali Linux for Ethical Hacking

04 Aug 2025

1. Exercises, Quizzes, Flashcards & Glossary

   Number of Questions

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. Chapter & Lessons

   Syllabus

   Chapter 1: Preface

   Chapter 2: Foundations of Ethical Hacking and Kali Linux

   Chapter 3: Information Gathering and Network Scanning

   Chapter 4: Executing Vulnerability Assessment

   Chapter 5: Exploitation Techniques

   Chapter 6: Post-Exploitation Activities

   Chapter 7: Wireless Network Security and Exploitation

   Chapter 8: Web Application Attacks

   Chapter 9: Hands-on Shell Scripting with Error Debugging Automation

   Chapter 10: Real-World Penetration Testing Scenarios

   Videos and How To

1. 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.

2. 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.

3. 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.

4. 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

5. ⚙ Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

Syllabus

Chapter 1: Preface

Chapter 2: Foundations of Ethical Hacking and Kali Linux

- Introduction

- Ethical hacking overview

- Kali Linux: A powerful penetration testing platform

- Setting up your Kali Linux environment

- The ethical hacker's mindset

- Legal and ethical considerations

- Conclusion

Chapter 3: Information Gathering and Network Scanning

- Introduction

- Passive information-gathering techniques

- Active information gathering techniques

- Network scanning and enumeration

- Working with Nmap and other scanning tools

- DNS enumeration and zone transfers

- Social engineering techniques

- Conclusion

Chapter 4: Executing Vulnerability Assessment

- Introduction

- Understanding vulnerabilities

- Hardware vulnerabilities

- Network vulnerabilities

- Human vulnerabilities

- Vulnerability scanning tools

- Manual vulnerability assessment techniques

- Interpreting and prioritizing assessment results

- Risk assessment and management

- Vulnerability databases and resources

- Conclusion

Chapter 5: Exploitation Techniques

- Introduction

- Exploitation frameworks in Kali Linux

- Working with Metasploit

- Client-side and web application exploitation

- Password attacks and brute forcing

- Exploiting common network services

- Conclusion

Chapter 6: Post-Exploitation Activities

- Introduction

- Privilege escalation

- Maintaining persistence and lateral movement

- Data exfiltration and manipulation

- Demonstrating data exfiltration and manipulation with Kali Linux

- Covering your tracks and evading detection

- Understanding C2 channels

- Conclusion

Chapter 7: Wireless Network Security and Exploitation

- Introduction

- Wireless networking fundamentals

- Wireless network vulnerabilities and attacks

- Tools for wireless network exploitation

- Defending against wireless attacks

- Bluetooth and IoT security

- Design best practices

- Conclusion

Chapter 8: Web Application Attacks

- Introduction

- Web application security fundamentals

- Web application attacks and vulnerabilities

- Web application exploitation tools and techniques

- Securing web applications

- API security and testing

- Secure development best practices

- Conclusion

Chapter 9: Hands-on Shell Scripting with Error Debugging Automation

- Introduction

- Shell scripting with error debugging automation

- Bash scripting basics

- Error handling and debugging

- Conclusion

Chapter 10: Real-World Penetration Testing Scenarios

- Introduction

- Embarking on practical cybersecurity expeditions

- Planning and scoping a penetration test

- Conducting the engagement

- Reporting and remediation

- Lessons learned and ongoing improvement

- Red team vs. Blue team exercises

- Continuous security monitoring and testing

- Navigating the endless cyber frontier

- Conclusion

You can't stay away! Get

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