Course Ou

Certified Ethical Hacker



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1. Course Objective

Get hands-on experience in Ethical hacking basics with the Certified Ethical Hacker course and lab. The course provides a vivid introduction to the technical foundations of hacking, social engineering, malware threats, and vulnerability analysis with clear and approachable lesson flowcharts, and other tools. It illustrates how to look after web server hacking, web applications, and database attacks. The Certified Ethical Hacker course will assist you in dealing with Cryptographic attacks and defense concepts.

2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

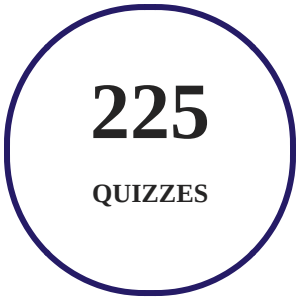
3. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.



4. Quizzes

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.



5. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



6. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



7. 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.

8. 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.

9. 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.

10. 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

11. 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: Introduction

- What Is a CEH?
- About EC-Council
- Using This Course

- Objective Map
- Let's Get Started!

Chapter 2: Ethical Hacking

- Overview of Ethics
- Overview of Ethical Hacking
- Methodologies
- Methodology of Ethical Hacking
- Summary

Chapter 3: Networking Foundations

- Communications Models
- Topologies
- Physical Networking
- IP
- TCP
- UDP
- Internet Control Message Protocol

- Network Architectures
- Cloud Computing
- Summary

Chapter 4: Security Foundations

- The Triad
- Risk
- Policies, Standards, and Procedures
- Organizing Your Protections
- Security Technology
- Being Prepared
- Summary

Chapter 5: Footprinting and Reconnaissance

- Open Source Intelligence
- Domain Name System
- Passive Reconnaissance
- Website Intelligence
- Technology Intelligence

- Summary

Chapter 6: Scanning Networks

- Ping Sweeps
- Port Scanning
- Vulnerability Scanning
- Packet Crafting and Manipulation
- Evasion Techniques
- Protecting and Detecting
- Summary

Chapter 7: Enumeration

- Service Enumeration
- Remote Procedure Calls
- Server Message Block
- Simple Network Management Protocol
- Simple Mail Transfer Protocol
- Web-Based Enumeration

- Summary

Chapter 8: System Hacking

- Searching for Exploits
- System Compromise
- Gathering Passwords
- Password Cracking
- Client-Side Vulnerabilities
- Living Off the Land
- Fuzzing
- Post Exploitation
- Summary

Chapter 9: Malware

- Malware Types
- Malware Analysis
- Creating Malware
- Malware Infrastructure
- Antivirus Solutions

- Persistence
- Summary

Chapter 10: Sniffing

- Packet Capture
- Packet Analysis
- Spoofing Attacks
- Summary

Chapter 11: Social Engineering

- Social Engineering
- Physical Social Engineering
- Phishing Attacks
- Website Attacks
- Wireless Social Engineering
- Automating Social Engineering
- Summary

Chapter 12: Wireless Security

- Wi-Fi
- Bluetooth
- Mobile Devices
- Summary

Chapter 13: Attack and Defense

- Web Application Attacks
- Denial-of-Service Attacks
- Application Exploitation
- Lateral Movement
- Defense in Depth/Defense in Breadth
- Defensible Network Architecture
- Summary

Chapter 14: Cryptography

- Basic Encryption
- Symmetric Key Cryptography
- Asymmetric Key Cryptography

- Certificate Authorities and Key Management
- Cryptographic Hashing
- PGP and S/MIME
- Disk and File Encryption
- Summary

Chapter 15: Security Architecture and Design

- Data Classification
- Security Models
- Application Architecture
- Security Architecture
- Summary

Chapter 16: Cloud Computing and the Internet of Things

- Cloud Computing Overview
- Cloud Architectures and Deployment
- Common Cloud Threats
- Internet of Things
- Operational Technology

- Summary

12. Practice Test

Here's what you get

125	2	125
PRE-ASSESSMENTS QUESTIONS	FULL LENGTH TESTS	POST-ASSESSMENTS QUESTIONS

Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

13. 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

Security Foundations

- Creating a Personal Linux Firewall Using iptables
- Viewing Syslog for Monitoring Logs
- Configuring Audit Policies in Windows
- Using Event Viewer

Footprinting and Reconnaissance

- Using the whois Program
- Using the theHarvester Tool
- Using Maltego to Gather Information
- Using Recon-ng to Gather Information
- Using ipconfig to Perform Reconnaissance
- Using dnsrecon to Perform Enumeration
- Performing Zone Transfer Using dig
- Using nslookup
- Using the host Program
- Mirroring Sites with HTTrack

Scanning Networks

- Using the fping Command
- Using the Zenmap Tool
- Scanning a Port Using nmap
- Using the masscan Command
- Performing Vulnerability Scanning Using OpenVAS
- Conducting Vulnerability Scanning Using Nessus
- Using the hping Program

Enumeration

- Using the Metasploit SunRPC Scanner
- Using nmap Scripts for Enumerating Users
- Enumerating Data Using enum4linux

System Hacking

- Searching Exploits Using searchsploit
- Grabbing a Screenshot of a Target Machine Using Metasploit
- Using Rainbow Tables to Crack Passwords
- Cracking Windows Passwords
- Cracking a Linux Password Using John the Ripper
- Exploiting Windows 7 Using Metasploit

Malware

- Observing an MD5-Generated Hash Value
- Using the msfvenom Program
- Scanning Malware Using Antivirus

Sniffing

- Capturing Network Packets Using tcpdump
- Capturing Packets Using Wireshark
- Performing ARP Spoofing

Social Engineering

- Detecting a Phishing Site Using Netcraft
- Using SET Tool to Plan an Attack

Attack and Defense

- Exploiting a Website Using SQL Injection
- Attacking a Website Using XSS Injection
- Simulating a DoS Attack
- Defending Against a Buffer Overflow Attack

Cryptography

- Performing Symmetric Encryption
- Examining Asymmetric Encryption
- Using OpenSSL to Create a Public/Private Key Pair
- Observing an SHA-Generated Hash Value
- Creating PGP Certification

Here's what you get

47	48	01:36
LIVE LABS	VIDEO TUTORIALS	HOURS

14. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

GET IN TOUCH:

3187 Independence Drive
Livermore, CA 94551,
United States

+1-415-763-6300

support@ucertify.com

www.ucertify.com