

uCertify

Course Outline

Modern Cybersecurity Practices



26 Apr 2025

1. Pre-Assessment
2. Exercises, Quizzes, Flashcards & Glossary
Number of Questions
3. Expert Instructor-Led Training
4. ADA Compliant & JAWS Compatible Platform
5. State of the Art Educator Tools
6. Award Winning Learning Platform (LMS)
7. Chapter & Lessons
Syllabus
Chapter 1: Preface
Chapter 2: What's at Stake?
Chapter 3: Example Attack - The Initial Breach
Chapter 4: Example Attack - Lateral Movement
Chapter 5: Example Attack - Data Exfiltration
Chapter 6: Example Attack - Going Out with a Bang
Chapter 7: Scrutinizing the Example Attack
Chapter 8: Adhere to a Security Standard
Chapter 9: Defining Security Policies, Procedures, Standards, and Guidelines
Chapter 10: Kicking Off the Security Program
Chapter 11: Passive Security Monitoring
Chapter 12: Active Security Monitoring
Chapter 13: Threat Hunting
Chapter 14: The Continuous Battle
Videos and How To
8. Practice Test
Here's what you get
Features
9. Performance Based labs

Lab Tasks

Here's what you get

1. 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.

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. 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: What's at Stake?

- Some Statistics
- A Common Enemy, Improper Input Validation
- Conclusion
- Questions

Chapter 3: Example Attack - The Initial Breach

- Company X - not that secure
- The exposure
- The Vulnerability
- Conclusion
- Questions

Chapter 4: Example Attack - Lateral Movement

- Admin in the cloud - what can go wrong...?
- Adding our tools to the cloud
- Exploring the local network segment

- Using Credential Stuffing on Company X
- Attacking TESTSERVER-WEB1
- Finding User Credentials on a Compromised System
- Moving to the Next System
- Conclusion
- Questions

Chapter 5: Example Attack - Data Exfiltration

- What are we doing here?
- What's in a database?
- Exploring the sales web server for clues
- Getting the Goodies
- Conclusion
- Questions

Chapter 6: Example Attack - Going Out with a Bang

- Attack recap
- What else can be done with a foothold in the network?
- NotPetya

- Executing a payload on a group of computers
- Sealing company X's fate
- Conclusion
- Questions

Chapter 7: Scrutinizing the Example Attack

- Security Issue 1: Not Properly Implemented Network Architecture Design
- Security Issue 2: Secure System Build and Change Management Practices
- Security Issue 3: IDS, IPS, and Endpoint Protection Systems
- Security issue 4: Credential management
- Security issue 5: User privilege management, privilege creep
- Security Issue 6: Security Monitoring
- Conclusion
- Questions

Chapter 8: Adhere to a Security Standard

- What is the security standard?
- Common security standards

- NERC
- Security standards for Operation Technology (OT) Space
- How To Pick A Standards Framework?
- A Fitting Standard for Company X's Security Program
- Setting Goals and Expectations for the Security Program
- Conclusion
- Questions

Chapter 9: Defining Security Policies, Procedures, Standards, and Guidelines

- Risk
- Common security policies
- Company X - Security Standards
- Company X - Security Procedures
- Document Storage and Management
- Conclusion
- Questions

Chapter 10: Kicking Off the Security Program

- Risk management and risk assessments

- Conclusion
- Questions

Chapter 11: Passive Security Monitoring

- Security Incidents
- Event Logs
- Network Traffic Packet Captures
- Firewalls and IDS/IPS
- The Microsoft Azure Sentinel SIEM
- Conclusion
- Questions

Chapter 12: Active Security Monitoring

- What is vulnerability management?
- Actively looking for vulnerabilities
- Going over the scan results
- Conclusion
- Questions

Chapter 13: Threat Hunting

- What is threat hunting?
- Information needed for the job
- Splunk
- ELK Stack
- Areas of interest - Hunting exercises
- Network activity
- Conclusion
- Questions

Chapter 14: The Continuous Battle

- Recap of our efforts so far
- Manage risk by defining a reoccurring security program cycle
- What if things do go wrong? - Incident handling
- What Else Can Be Done to Improve One's Security Program and Posture?
- Conclusion
- Questions

7. Practice Test

Here's what you get

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.

8. Performance Based Labs

uCertify's performance-based labs are simulators that provides virtual environment. Labs deliver hands on experience with minimal risk and thus replace expensive physical labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available

- Videos on how to perform

Lab Tasks

Here's what you get

You can't stay away! Get

 3187 Independence Drive
Livermore, CA 94551,
United States  +1-415-763-6300  support@ucertify.com  www.ucertify.com