uCertify

Course Outline

Certified Internet of Things Security Practitioner (CIoTSP)



27 Mar 2024

1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary

   Number of Questions
4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons

   Syllabus

   Chapter 1: Introduction

   Chapter 2: Managing IoT Risks

   Chapter 3: Securing Web and Cloud Interfaces

   Chapter 4: Securing Data

   Chapter 5: Controlling Access to IoT Resources

   Chapter 6: Securing IoT Networks

   Chapter 7: Ensuring Privacy

   Chapter 8: Managing Software and Firmware Risks

   Chapter 9: Promoting Physical Security

   Chapter 10: Appendix A: Mapping CertNexus Certified Internet...tioner Exam ITS-110 Objectives to Course Content

   Videos and How To
9. Practice Test

   Here's what you get

   Features
10. Live labs

    Lab Tasks

    Here's what you get
11. Post-Assessment

1. Course Objective

Kick start your prep for the CIoTSP exam with the Certified Internet of Things Security Practitioner (CIoTSP) course and lab. The lab provides a hands-on learning experience in a safe, online environment. The IoT certification course and lab cover the ITS-110 exam objectives and teach you about securing data, addressing privacy concerns, securing software/firmware, enhancing physical security, and more. After completing this ITS-110 training course, you will have the foundational skill set of IoT concepts, technologies, and tools.

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.

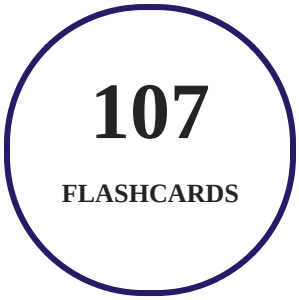
3. Quizzes

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.



4. 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.



5. 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.



6. 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.

7. 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.

8. 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.

9. 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

10. 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

- Course Description
- How to Use This Course

Chapter 2: Managing IoT Risks

- Topic A: Map the IoT Attack Surface
- Topic B: Build in Security by Design
- Summary

Chapter 3: Securing Web and Cloud Interfaces

- Topic A: Identify Threats to IoT Web and Cloud Interfaces
- Topic B: Prevent Injection Flaws
- Topic C: Prevent Session Management Flaws
- Topic D: Prevent Cross-Site Scripting Flaws
- Topic E: Prevent Cross-Site Request Forgery Flaws
- Topic F: Prevent Unvalidated Redirects and Forwards
- Summary

Chapter 4: Securing Data

- Topic A: Use Cryptography Appropriately
- Topic B: Protect Data in Motion
- Topic C: Protect Data at Rest
- Topic D: Protect Data in Use
- Summary

Chapter 5: Controlling Access to IoT Resources

- Topic A: Identify the Need to Protect IoT Resources

- Topic B: Implement Secure Authentication
- Topic C: Implement Secure Authorization
- Topic D: Implement Security Monitoring on IoT Systems
- Summary

Chapter 6: Securing IoT Networks

- Topic A: Ensure the Security of IP Networks
- Topic B: Ensure the Security of Wireless Networks
- Topic C: Ensure the Security of Mobile Networks
- Topic D: Ensure the Security of IoT Edge Networks
- Summary

Chapter 7: Ensuring Privacy

- Topic A: Improve Data Collection to Reduce Privacy Concerns
- Topic B: Protect Sensitive Data
- Topic C: Dispose of Sensitive Data
- Summary

Chapter 8: Managing Software and Firmware Risks

- Topic A: Manage General Software Risks
- Topic B: Manage Risks Related to Software Installation and Configuration
- Topic C: Manage Risks Related to Software Patches and Updates
- Topic D: Manage Risks Related to IoT Device Operating Systems and Firmware
- Summary

Chapter 9: Promoting Physical Security

- Topic A: Protect Local Memory and Storage
- Topic B: Prevent Physical Port Access
- Summary

Chapter 10: Appendix A: Mapping CertNexus Certified Internet...tioner Exam ITS-110 Objectives to Course Content

11. Practice Test

Here's what you get

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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.

12.  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

Securing Web and Cloud Interfaces

- Creating a New Inbound Rule
- Exploiting LDAP-Based Authentication
- Exploiting a Website Using SQL Injection
- Using OWASP ZAP

Securing Data

- Applying Symmetric Key Encryption
- Using the MD5 Hash Algorithm
- Using OpenSSL to Create a Public/Private Key Pair
- Performing a MITM Attack
- Performing a Memory-Based Attack

Securing IoT Networks

- Performing ARP Spoofing
- Spoofing MAC Address
- Obtaining Information about Different IP Versions
- Obtaining Hardware Information of a Network Adapter
- Obtaining the ARP Cache
- Obtaining the IP Version of a Network Adapter
- Obtaining the IP Route Information from the IP Routing Table
- Obtaining Information about the Net Firewall Profile
- Getting the TCP Settings
- Getting Information about the Current Connection Statistics of TCP
- Getting Information about the TCP Ports
- Getting the UDP Settings
- Getting Information about the Current Connection Statistics of UDP
- Getting Information about the UDP Ports

- Scanning the Local Network

Here's what you get

24

LIVE LABS

13. 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