Course Ou

Certified Secure Software Lifec
(CSSLP)



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1. Course Objective

Pass the (ISC)² CSSLP exam with the Certified Secure Software Lifecycle Professional (CSSLP) course and lab. The lab can be mapped to any course, textbook, or training, therefore, adding value and a hands-on component to training. The CSSLP training guide provides skills for the CSSLP exam topics and expertise in the areas such as security design principles, threat modeling, secure interface design, architectural risk assessment, code for security risks, dynamic application security testing (DAST), and many more.

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

- Why Focus on Software Development?
- The Role of CSSLP
- How to Use This Course?
- The Examination
- CSSLP (2020)

Chapter 2: General Security Concepts

- General Security Concepts

- Security Models
- Adversaries
- Lesson Review

Chapter 3: Risk Management

- Definitions and Terminology
- Types of Risk
- Governance, Risk, and Compliance
- Risk Management Models
- Risk Options
- Lesson Review

Chapter 4: Security Policies and Regulations

- Regulations and Compliance
- Legal Issues
- Privacy
- Security Standards
- Secure Software Architecture

- Trusted Computing
- Acquisition
- Lesson Review

Chapter 5: Software Development Methodologies

- Secure Development Lifecycle
- Secure Development Lifecycle Components
- Software Development Models
- Microsoft Security Development Lifecycle
- Lesson Review

Chapter 6: Policy Decomposition

- Confidentiality, Integrity, and Availability Requirements
- Authentication, Authorization, and Auditing Requirements
- Internal and External Requirements
- Lesson Review

Chapter 7: Data Classification and Categorization

- Data Classification

- Data Ownership
- Labeling
- Types of Data
- Data Lifecycle
- Lesson Review

Chapter 8: Requirements

- Functional Requirements
- Operational Requirements
- Requirements Traceability Matrix
- Connecting the Dots
- Lesson Review

Chapter 9: Design Processes

- Attack Surface Evaluation
- Threat Modeling
- Control Identification and Prioritization
- Risk Assessment for Code Reuse
- Documentation

- Design and Architecture Technical Review
- Lesson Review

Chapter 10: Design Considerations

- Application of Methods to Address Core Security Concepts
- Interfaces
- Lesson Review

Chapter 11: Securing Commonly Used Architecture

- Distributed Computing
- Service-Oriented Architecture
- Rich Internet Applications
- Pervasive/Ubiquitous Computing
- Mobile Applications
- Integration with Existing Architectures
- Cloud Architectures
- Lesson Review

Chapter 12: Technologies

- Authentication and Identity Management
- Credential Management
- Flow Control (Proxies, Firewalls, Middleware)
- Logging
- Data Loss Prevention
- Virtualization
- Digital Rights Management
- Trusted Computing
- Database Security
- Programming Language Environment
- Operating Systems
- Embedded Systems
- Lesson Review

Chapter 13: Common Software Vulnerabilities and Countermeasures

- CWE/SANS Top 25 Vulnerability Categories
- OWASP Vulnerability Categories
- Common Vulnerabilities and Countermeasures

- Input Validation Failures
- Common Enumerations
- Virtualization
- Embedded Systems
- Side Channel
- Social Engineering Attacks
- Lesson Review

Chapter 14: Defensive Coding Practices

- Declarative vs. Programmatic Security
- Memory Management
- Error Handling
- Interface Coding
- Primary Mitigations
- Learning from Past Mistakes
- Lesson Review

Chapter 15: Secure Software Coding Operations

- Code Analysis (Static and Dynamic)
- Code/Peer Review
- Build Environment
- Antitampering Techniques
- Configuration Management: Source Code and Versioning
- Lesson Review

Chapter 16: Security Quality Assurance Testing

- Standards for Software Quality Assurance
- Testing Methodology
- Functional Testing
- Security Testing
- Environment
- Bug Tracking
- Attack Surface Validation
- Testing Artifacts
- Test Data Lifecycle Management
- Lesson Review

Chapter 17: Security Testing

- Scanning
- Penetration Testing
- Fuzzing
- Simulation Testing
- Testing for Failure
- Cryptographic Validation
- Regression Testing
- Impact Assessment and Corrective Action
- Lesson Review

Chapter 18: Secure Lifecycle Management

- Introduction to Acceptance
- Pre-release Activities
- Post-release Activities
- Lesson Review

Chapter 19: Secure Software Installation and Deployment

- Secure Software Installation and Its Subsequent Deployment
- Configuration Management
- Lesson Review

Chapter 20: Secure Software Operations and Maintenance

- Secure Software Operations
- The Software Maintenance Process
- Secure DevOps
- Secure Software Disposal
- Lesson Review

Chapter 21: Supply Chain and Software Acquisition

- Supplier Risk Assessment
- Supplier Sourcing
- Software Development and Testing
- Software Delivery, Operations, and Maintenance
- Supplier Transitioning
- Lesson Review

11. Practice Test

uCertify provides full length practice tests. These tests closely follow the exam objectives and are designed to simulate real exam conditions. Each course has a number of test sets consisting of hundreds of items to ensure that learners are prepared for the certification exam.

Here's what you get

100	2	100
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. 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

- Understanding Security Design Tenets
- Discussing About Access Control Models
- Understanding Information Flow Models
- Understanding Annualized Loss Expectancy
- Understanding Compliance-Based Assessment Regulations
- Understanding PII and PHI
- Understanding National Institute of Standards and Technology
- Discussing About Software Development Methodologies
- Understanding Secure Development Lifecycle Components
- Understanding Software Development Models
- Understanding Access Control Mechanisms
- Understanding Data Classification Types
- Understanding Data Ownership Roles
- Understanding Functional Requirements
- Understanding the Requirements Traceability Matrix
- Understanding Documentation
- Discussing About Security Design Considerations
- Understanding Distributed Computing Terms

- Understanding the Enterprise Service Bus
- Understanding Cloud Service Models
- Understanding X.509 Digital Certificate Fields
- Understanding Flow Control Technologies
- Understanding Syslog
- Understanding Trusted Computing Elements
- Discussing About Software Vulnerabilities and Countermeasures
- Understanding the Buffer Overflow Attack
- Understanding Imperative and Declarative Securities
- Understanding Memory Management
- Understanding Code Analysis Types
- Discussing About Security Quality Assurance Testing Methods
- Understanding Functional Testing Types
- Understanding Security Testing Types
- Understanding the Attack Surface Analyzer
- Understanding Regression Testing
- Understanding Various Forms of Testing
- Understanding Bootstrapping
- Understanding Operations/Maintenance Activities
- Understanding the Software Disposal Process
- Discussing About Supplier Risk Assessment
- Understanding Service Level Agreements

Here's what you get

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PERFORMANCE BASED LAB

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.

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