

**Days:** 5

**Audience:** This course is designed for experienced cybersecurity professionals seeking to earn the CompTIA SecurityX (formerly CASP+) certification. Ideal for security architects, senior security engineers, and technical leads responsible for securing complex enterprise environments.

**Prerequisites:** Candidates should have at least 10 years of general IT experience, including a minimum of 5 years of hands-on cybersecurity experience. Familiarity with enterprise security, risk management, and architecture is essential.

**Description:** This advanced-level course prepares learners to architect, engineer, integrate, and implement secure solutions across diverse enterprise environments. Participants will gain expertise in governance and compliance, security architecture, operations, engineering, and automation. The training aligns with the CAS-005 exam objectives and covers hands-on scenarios to reinforce critical thinking and problem-solving.

**Course Objectives:** In this course, you will:

- Apply governance, risk, and compliance (GRC) frameworks
- Architect secure systems and networks
- Engineer proactive detection, response, and access controls
- Implement cryptographic techniques and emerging technologies
- Lead enterprise-wide security operations and automation initiatives

## OUTLINE:

### CHAPTER 1: GOVERNANCE AND COMPLIANCE

Module A: Security governance

Module B: Regulatory compliance

Module C: Standards and frameworks

### CHAPTER 2: SECURITY PROGRAM DESIGN

Module A: Controls and procedures

Module B: Security program management

### CHAPTER 3: RISK MANAGEMENT

Module A: Risk assessment

Module B: Risk management strategies

### CHAPTER 4: THREAT MANAGEMENT

Module A: Threats and vulnerabilities

Module B: Threat intelligence sources

Module C: Applied intelligence

### CHAPTER 5: CRYPTOGRAPHIC TECHNIQUES

Module A: Cryptographic principles

Module B: Ciphers and hashes

### CHAPTER 6: APPLIED CRYPTOGRAPHY

Module A: Public key infrastructure

Module B: Cryptographic protocols

### CHAPTER 7: AUTHENTICATION AND AUTHORIZATION

Module A: Access control components

Module B: Authentication technologies

### CHAPTER 8: SECURE ARCHITECTURE

Module A: Hardware security

Module B: Resilient architecture

### CHAPTER 9: AUTOMATED SYSTEMS

Module A: Security automation

Module B: Artificial intelligence

### CHAPTER 10: PROTECTING HOSTS AND DATA

Module A: Host security tools

Module B: Securing endpoints and servers

Module C: Data security

### CHAPTER 11: NETWORK SECURITY ARCHITECTURE

Module A: Network security infrastructure

Module B: Secure network configuration

### CHAPTER 12: THREAT DETECTION

Module A: Threat detection systems

Module B: Network sensors

### CHAPTER 13: THREAT ANALYSIS

Module A: Data aggregation and analysis

Module B: Forensic analysis

### CHAPTER 14: SPECIALIZED INFRASTRUCTURE SECURITY

Module A: Specialized systems

Module B: Secure cloud infrastructure

# CompTIA SecurityX Certification Training

## CHAPTER 15: SECURE APPLICATIONS

Module A: Secure systems development

Module B: Application vulnerabilities

## CHAPTER 16: SECURITY ASSESSMENT AND TESTING

Module A: Security testing programs

Module B: Vulnerability and patch management