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<u>**Course Syllabus**</u>

CompTIA Certified Advanced Security Practitioner (CASP+) Course

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<u>**Course Description and Goals**</u>

Course Description:
Welcome to CompTIA Advanced Security Practitioner CAS-003. This course provides the knowledge needed to implement security solutions within an enterprise policy framework, using a vendor-neutral format. This includes risk and vulnerability management programs, organizational policies and training, applied cryptography, system security, network security, identity management, and incident response. This course maps to the CompTIA CASP certification exam. Objective coverage is marked throughout the course.
Students will benefit most from this course if you intend to take a CompTIA Advanced Security Practitioner CAS-003 exam.

Skills measured
1.0 Risk Management 19%
2.0 Enterprise Security Architecture 25%
3.0 Enterprise Security Operations 20%
4.0 Technical Integration of Enterprise Security 23%
5.0 Research, Development and Collaboration 13%
Total 100%

Note: This exam measures your ability to accomplish the technical tasks listed above. The percentages indicate the relative weight of each major topic area on the exam. The higher the percentage, the more questions you are likely to see on that content area on the exam.

Prerequisites:

The CASP+ certification is aimed at IT security professionals who have:

❏ A minimum of ten years of experience in IT administration, including at least five years of hands-on technical security experience

❏ The following recommended prerequisites: CompTIA Network+, Security+, CySA+ or equivalent experience

Study Resources: All resources for the course will be provided in the 'resources' tab of the course page.

Labs Used: The Cumulative Lab used will be presented at the end of the first module. A section of the lab can be completed at this point, however the entire lab should be completed in sections as you move through the course.

● CompTIA CASP+ (Practice Labs Lab)

Course Goals: By the end of this course, students should be able to:

❏ Conceptualize, engineer, integrate and implement secure solutions across complex environments to support a resilient enterprise

❏ Apply critical thinking and judgment across a broad spectrum of security disciplines to propose, implement and advocate sustainable security solutions that map to organizational strategies, balance security requirements with business/regulatory requirements, analyze risk impact and respond to security incidents

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Course Outline

Module 1 | Risk Management
 Lesson 1.1: Course Introduction (02:22)
 Lesson 1.2: Course Exam Overview (05:21)
 Lesson 1.3: Risk Management Introduction (02:01)
 Lesson 1.4: Understanding Security Concepts Part 1 (10:45)
 Lesson 1.5: Understanding Security Concepts Part 2 (11:28)
 Lesson 1.6: Understanding Threats and Vulnerabilities (07:50)
 Lesson 1.7: Understanding Risk Assessment Part 1 (13:14)
 Lesson 1.8: Understanding Risk Assessment Part 2 (10:13)
 Lesson 1.9: Key Takeaways - Cybersecurity Fundamentals (01:38)
 CompTIA CASP+ (Practice Labs Lab)

Module 2 | Vulnerability Management
 Lesson 2.1: Cybersecurity Research Part 1 (08:21)
 Lesson 2.2: Cybersecurity Research Part 2 (06:08)
 Lesson 2.3: Vulnerability Assessment Part 1 (05:52)
 Lesson 2.4: Vulnerability Assessment Part 2 (05:46)
 Lesson 2.5: Vulnerability Assessment Part 3 (08:20)
 Lesson 2.6: Vulnerability Management (09:40)
 Lesson 2.7: Key Takeaways - Vulnerability Management: Terms to Know (01:29)

Module 3 | Organizational Security
 Lesson 3.1: Security Frameworks (10:35)
 Lesson 3.2: Security Policies (07:00)
 Lesson 3.3: Document and Operate Security Controls (03:31)

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Lesson 7.1: Network Security Architecture Introduction (01:07)
Lesson 7.2: Network Security Devices Part 1 (09:57)
Lesson 7.3: Network Security Devices Part 2 (10:45)
Lesson 7.4: How Network Technologies can Enhance Security (04:34)
Lesson 7.5: Security Through Network Design Elements (04:17)
Lesson 7.6: Key Takeaways - Security Architecture (01:50)

Module 8 | Secure Network Configuration
Lesson 8.1: Secure Network Configuration Introduction (00:53)
Lesson 8.2: Securing Network Infrastructure Devices (15:19)
Lesson 8.3: Securing Communications (07:09)
Lesson 8.4: Key Takeaways - Secure Network Configuration (01:21)

Module 9 | Scanning and Monitoring
Lesson 9.1: Scanning and Monitoring Introduction (00:58)
Lesson 9.2: Perform Security Assessment Activities (06:40)
Lesson 9.3: Operate and Maintain Monitoring Systems (09:49)
Lesson 9.4: Analyze Monitoring Results (08:02)
Lesson 9.5: Key Takeaways - Scanning and Monitoring (00:57)

Module 10 | Identity Management
Lesson 10.1: Identity Management Introduction (01:23)
Lesson 10.2: Implement Authentication Mechanisms (09:49)
Lesson 10.3: Operate Internetwork Trust Architectures (08:11)
Lesson 10.4: Participate in the Identity-Management Lifecycle (06:56)
Lesson 10.5: Implement Access Controls (08:26)
Lesson 10.6: Key Takeaways - Identity Management (03:07)

Module 11 | Incident Response
Lesson 11.1: Incident Response Introduction (01:28)
Lesson 11.2: Participate in Incident Handling (12:31)
Lesson 11.3: Understand and Support Forensic Investigations (08:21)
Lesson 11.4: Key Takeaways - Incident Response (03:03)

Module 12 | CompTIA CASP+ (CAS-003) Practice Exam
    CompTIA Advanced Security Practitioner (CASP+) (Practice Labs Exam)
    CompTIA CAS-003: Advanced Security Practitioner (CASP)

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