

# CYSA (COMPTIA CYBERSECURITY ANALYST) 1.0

## Objetivo

CompTIA Cybersecurity Analyst CySA+ Certification Training Course Objectives: Prepare for and pass the Cybersecurity Analyst (CySA+) exam; Threat and Vulnerability Management; Software and Systems Security; Security Operations and Monitoring; Incident Response; Compliance and Assessment.

## Público Alvo

IT Security Professionals must have 3-4 years of hands-on information security or related experience for preparation to CompTIA Cybersecurity Analyst CySA+ Certification exam (CS0-002 CySA+).

## Pré-Requisitos

It is recommended that you have the following skills and knowledge before starting this course: Knowledge of basic network terminology and functions (such as OSI Model, Topology, Ethernet, Wi-Fi, switches, routers); Understanding of TCP/IP addressing, core protocols, and troubleshooting tools; Network attack strategies and defenses; Knowledge of the technologies and uses of cryptographic standards and products; Network- and host-based security technologies and practices; Standards and products used to enforce security on web and communications technologies.

## Carga Horária

40 horas (5 dias).

## Conteúdo Programático

### Cybersecurity Analyst

- Cybersecurity Objectives
- Privacy vs. Security
- Evaluating Security Risks
- Building a Secure Network
- Secure Endpoint Management
- Penetration Testing
- Reverse Engineering
- The Future of Cybersecurity Analytics

### Using Threat Intelligence

- Threat Data and Intelligence
- Threat Classification
- Attack Frameworks
- Applying Threat Intelligence Organizationwide

## **Reconnaissance and Intelligence Gathering**

- Mapping and Enumeration
- Passive Footprinting
- Gathering Organizational Intelligence
- Detecting, Preventing, and Responding to Reconnaissance

## **Designing a Vulnerability Management Program**

- Identifying Vulnerability Management Requirements
- Configuring and Executing Vulnerability Scans
- Developing a Remediation Workflow
- Overcoming Risks of Vulnerability Scanning
- Vulnerability Scanning Tools

## **Analyzing Vulnerability Scans**

- Reviewing and Interpreting Scan Reports
- Validating Scan Results
- Common Vulnerabilities

## **Cloud Security**

- Understanding Cloud Environments
- Operating in the Cloud
- Cloud Infrastructure Security

## **Infrastructure Security and Controls**

- Understanding Defense-in-Depth
- Improving Security by Improving Controls
- Analyzing Security Architecture

## **Identity and Access Management Security**

- Understanding Identity
- Threats to Identity and Access
- Identity as a Security Layer
- Federation and Single Sign-On

## **Software and Hardware Development Security**

- Software Assurance Best Practices
- Designing and Coding for Security
- Software Security Testing
- Hardware Assurance Best Practices

## **Security Operations and Monitoring**

- Security Monitoring

## **Building an Incident Response Program**

- Security Incidents
- Phases of Incident Response
- Building the Foundation for Incident Response
- Creating an Incident Response Team

Coordination and Information Sharing  
Classifying Incidents

### **Analyzing Indicators of Compromise**

Analyzing Network Events  
Investigating Host-Related Issues  
Investigating Service and Application-Related Issues

### **Performing Forensic Analysis and Techniques**

Building a Forensics Capability  
Understanding Forensic Software  
Conducting Endpoint Forensics  
Network Forensics  
Cloud, Virtual, and Container Forensics  
Conducting a Forensic Investigation  
Forensic Investigation: An Example

### **Containment, Eradication, and Recovery**

Containing the Damage  
Incident Eradication and Recovery  
Wrapping Up the Response

### **Risk Management**

Analyzing Risk  
Managing Risk  
Security Controls

### **Policy and Compliance**

Understanding Policy Documents  
Complying with Laws and Regulations  
Adopting a Standard Framework  
Implementing Policy-Based Controls  
Security Control Verification and Quality Control

### **Labs:**

Lab 1: Analyzing Output from Network Security Monitoring Tools  
Lab 2: Analyzing Output from Security Appliance Logs  
Lab 3: Analyzing Output from Endpoint Security Monitoring Tools  
Lab 4: Analyzing Email Headers  
Lab 5: Configuring SIEM Agents and Collectors  
Lab 6: Analyzing, Filtering, and Searching Event Log and syslog Output  
Lab 7: Collecting and Validating Digital Evidence  
Lab 8: Analyzing Network-related IoCs  
Lab 9: Analyzing Host and Application IoCs  
Lab 10: Observing IoCs during a Security Incident  
Lab 11: Analyzing Output from Topology and Host Enumeration Tools  
Lab 12: Testing Credential Security  
Lab 13: Configuring Vulnerability Scanning and Analyzing Outputs

- Lab 14: Assessing Vulnerability Scan Outputs
- Lab 15: Assessing the Impact of Regulation on Vulnerability Management
- Lab 16: Performing Account and Permissions Audits
- Lab 17: Configuring Network Segmentation and Security
- Lab 18: Configuring and Analyzing Share Permissions
- Lab 19: Assessing the Impact of Web Application Vulnerabilities
- Lab 20: Analyzing Output from Web Application Assessment Tools
- Lab 21: Analyzing Output from Cloud Infrastructure Assessment Tools