

CySA+ Course Outline

Module 1 – Threat Management 1

- **Cybersecurity Analysts**
 - Cybersecurity Roles and Responsibilities
 - Frameworks and Security Controls
 - Risk Evaluation
 - Penetration Testing Processes

- **Reconnaissance Techniques**
 - The Kill Chain
 - Open Source Intelligence
 - Social Engineering
 - Topology Discovery
 - Service Discovery
 - OS Fingerprinting

Module 2 – Threat Management 2

- **Security Appliances**
 - Configuring Firewalls
 - Intrusion Detection and Prevention
 - Configuring IDS
 - Malware Threats
 - Configuring Anti-virus Software
 - Sysinternals
 - Enhanced Mitigation Experience Toolkit

- **Logging and Analysis**
 - Packet Capture
 - Packet Capture Tools
 - Monitoring Tools
 - Log Review and SIEM
 - SIEM Data Outputs
 - SIEM Data Analysis
 - Point-in-Time Data Analysis

Module 3 – Vulnerability Management

- **Managing Vulnerabilities**
- Vulnerability Management Requirements
- Asset Inventory
- Data Classification
- Vulnerability Management Processes
- Vulnerability Scanners
- Microsoft Baseline Security Analyzer
- Vulnerability Feeds and SCAP
- Configuring Vulnerability Scans
- Vulnerability Scanning Criteria
- Exploit Frameworks

- **Remediating Vulnerabilities**
- Analyzing Vulnerability Scans
- Remediation and Change Control
- Remediating Host Vulnerabilities
- Remediating Network Vulnerabilities
- Remediating Virtual Infrastructure Vulnerabilities

- **Secure Software Development**
- Software Development Lifecycle
- Software Vulnerabilities
- Software Security Testing
- Interception Proxies
- Web Application Firewalls
- Source Authenticity
- Reverse Engineering

Module 4 – Cyber Incident Response

- **Incident Response**
- Incident Response Processes
- Threat Classification
- Incident Severity and Prioritization
- Types of Data

- **Forensics Tools**
- Digital Forensics Investigations
- Documentation and Forms
- Digital Forensics Crime Scene

- Digital Forensics Kits
 - Image Acquisition
 - Password Cracking
 - Analysis Utilities
- **Incident Analysis and Recovery**
 - Analysis and Recovery Frameworks
 - Analyzing Network Symptoms
 - Analyzing Host Symptoms
 - Analyzing Data Exfiltration
 - Analyzing Application Symptoms
 - Using Sysinternals
 - Containment Techniques
 - Eradication Techniques
 - Validation Techniques
 - Corrective Actions

Module 5 – Security Architecture

- **Secure Network Design**
 - Network Segmentation
 - Blackholes, Sinkholes, and Honeypots
 - System Hardening
 - Group Policies and MAC
 - Endpoint Security
- **Managing Identities and Access**
 - Network Access Control
 - Identity Management
 - Identity Security Issues
 - Identity Repositories
 - Context-based Authentication
 - Single Sign On and Federations
 - Exploiting Identities
 - Exploiting Web Browsers and Applications
- **Security Frameworks and Policies**
 - Frameworks and Compliance
 - Reviewing Security Architecture
 - Procedures and Compensating Controls



- Verifications and Quality Control
- Security Policies and Procedures
- Personnel Policies and Training