

Course Outline for CompTIA CySA+ (CS0-003) CertMaster Learn, Student Guide and CertMaster Labs

Course Outline	CertMaster Learn	Student Guide eBook	CertMaster Labs
Overview	Each of the bulleted	Review Activities are	Labs are available at the
	activities below is a	embedded within the	course level or integrated
	separate study task	eBook. Videos and Practice	as study tasks within
	within the CertMaster	Questions are found in the	CertMaster Learn.
	Learn learning plan.	CompTIA Learning Center,	
	Students are encouraged	the platform through which	
	to complete a certain	the eBook is delivered.	
	number of tasks in each		
	login session based on		
	their desired course		
	completion date.		
Lesson 1:			
Understanding			
Vulnerability			
Response, Handling,			
and Management			
Topic 1A:	 Video: Applying the 	 Video: Applying the 	Assisted Lab: Explore
Understanding	Appropriate Risk	Appropriate Risk	the Lab Environment
Cybersecurity	Strategies	Strategies	
Leadership Concepts	Review Activity:	Review Activity:	
F	Cybersecurity	Cybersecurity	
Exam objectives	Leadership Concepts	Leadership Concepts	
covered:			
2.5 Explain concepts			
related to vulnerability			
response, nanaling,			
ana management.			
Topic 1B: Exploring	Review Activity:	Review Activity:	Assisted Lab:
Control Types and	Control Types and	Control Types and	Configuring Controls
wiethods	Methods	Methods	
Exam objectives			
covered			
2 5 Explain concents			
related to vulnerability			
response, handling			
and management.			
Topic 1C: Explaining	• Video: Configuring &	• Video: Configuring &	
Patch Management	Implementing	Implementing Endpoint	
Concepts	Endpoint Security	Security Controls	
	Controls		

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Exam objectives	Review Activity:	Review Activity:	
covered:	Patch Management	Patch Management	
2.5 Explain concepts	Concepts	Concepts	
related to vulnerability			
response, handling,			
and management.			
	Lesson 1: Practice	Lesson 1: Practice	
	Questions	Questions	
Lesson 2:			
Exploring Threat			
Intelligence and			
Threat Hunting			
Concepts			
Topic 2A: Exploring	• Video: Developing a	Video: Developing a	
Threat Actor Concepts	Network Threat	Network Threat Model	
	Model	Review Activity: Threat	
Exam objectives	Review Activity:	Actor Concepts	
covered:	Threat Actor		
1.4 Compare and	Concepts		
contrast threat-			
intelligence and			
threat-hunting			
concepts.			
Topic 2B: Identifying	Review Activity:	Review Activity:	Assisted Lab:
Active Threats	Active Threats	Active Threats	Reviewing IoC and
			Threat Intelligence
Exam objectives			Sources
covered:			
1.4 Compare and			
contrast threat-			
intelligence and			
threat-hunting			
concepts.			
Topic 2C: Exploring	Video: Analyzing	Video: Analyzing	Assisted Lab:
Threat-Hunting	Indicators of	Indicators of	Performing Threat
Concepts	Compromise	Compromise	Hunting
	PBO: Performing	Review Activity: Threat-	5
Exam objectives	Threat Intelligence	Hunting Concepts	
covered:	Review Activity		
1.4 Compare and	Threat-Hunting		
contrast threat-	Concents		
intelligence and			
threat-huntina			
concepts.			

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	Lesson 2: Practice	Lesson 2: Practice	
	Questions	Questions	
Lesson 3:			
Explaining Important			
Architecture Concents			
Architecture concepts			
Topic 3A: Reviewing	PBQ: Analyzing	Review Activity: System	APPLIED LAB:
System and Network	Network	and Network	Performing System
Architecture Concepts	Infrastructures	Architecture Concepts	Hardening
	Review Activity:		
Exam objectives	System and Network		
covered:	Architecture		
1.1 Explain the	Concepts		
and network			
architecture concepts			
in security operations.			
Topic 3B: Exploring	Video: Applying	Video: Applying System	Assisted Lab:
Identity and Access	System and Network	and Network	Configuring
Management (IAM)	Architecture	Architecture Concepts in	Centralized Logging
	Concepts in Security	Security Operations	
Exam objectives	Operations	Review Activity: Identity	
1 1 Evolain the	Review Activity:	and Access	
importance of system	Management (IAM)		
and network			
architecture concepts			
in security operations.			
Topic 3C: Maintaining	Review Activity:	Review Activity:	Assisted Lab: Assess
Operational Visibility	Operational Visibility	Operational Visibility	Time Synch Errors
Even objectives			
covered.			
1.1 Explain the			
importance of system			
and network			
architecture concepts			
in security operations.			
	Lesson 3: Practice Questions	Lesson 3: Practice Questions	
Lesson 4:			
Understanding			
Process Improvement			
in Security Operations			

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Topic 4A: Exploring	Video: Implementing	Video: Implementing	
Leadership in Security	Process	Process Improvement in	
Operations	Improvement in	Security Operations	
	Security Operations	Review Activity:	
Exam objectives	Review Activity:	Leadership and Security	
covered:	Leadership and	Operations	
1.5 Explain the	Security Operations		
importance of			
efficiency and process			
improvement in			
security operations.			
Topic 4B:	PBQ: Responding to a	Review Activity:	 Assisted Lab:
Understanding	Security Incident	Technology for Security	Configuring
Technology for	Review Activity:	Operations	Automation
Security Operations	Technology for		
Exam objectives	Security Operations		
covered:			
1 5 Evalain the			
importance of			
efficiency and process			
improvement in			
security operations			
security operations.	Losson 4: Practico	Losson 4: Practico	
	Lesson 4. Practice Ouestions	Lesson 4. Practice Ouestions	
Lesson 5:			
Implementing			
Vulnerability			
Scanning Methods			
Topic 5A: Explaining	Review Activity:	Review Activity:	
Compliance	Compliance	Compliance	
Requirements	Requirements	Requirements	
Exam objectives			
covered			
2 1 Given a scenario			
implement			
wulnerability scapping			
methods and			
concents			
Tonic 5B:	• Video: Implementing	• Video: Implementing	Accisted Labe
Understanding	Viueo. implementing	Video. Implementing	 Assisted LdD: Performing Asset
Vulnerability Scanning	vumerability	Mothods and Concepts	Discovery
Methods			

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Exam objectives covered: 3.3 Given a scenario, deploy cloud networking solutions	 Scanning Methods and Concepts PBQ: Implementing Vulnerability Scanning Methods PBQ: Analyzing Vulnerability Scans Review Activity: Vulnerability Scanning Methods Infrastructure Components 	 Review Activity: Vulnerability Scanning Methods 	 Assisted Lab: Performing Passive Scanning
Topic 5C: Exploring Special Considerations in Vulnerability Scanning Exam objectives covered: 2.1 Given a scenario, implement vulnerability scanning methods and concepts.	 Review Activity: Special Considerations in Vulnerability Scanning 	 Review Activity: Special Considerations in Vulnerability Scanning 	 Assisted Lab: Performing Vulnerability Scanning
	Lesson 5: Practice Questions	Lesson 5: Practice Questions	
Lesson 6: Performing Vulnerability Analysis			
Topic 6A: Understanding Vulnerability Scoring Concepts <i>Exam objectives</i> <i>covered:</i> 2.3 Given a scenario, analyze data to prioritize vulnerabilities.	 Video: Analyzing Data to Prioritize Vulnerabilities PBQ: Analyzing Data to Prioritize Vulnerabilities Review Activity: Vulnerability Scoring Concepts 	 Video: Analyzing Data to Prioritize Vulnerabilities Review Activity: Vulnerability Scoring Concepts 	
Topic 6B: Exploring Vulnerability Context Considerations	Review Activity: Vulnerability Context Considerations	Review Activity: Vulnerability Context Considerations	 Assisted Lab: Establishing Context Awareness

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Exam objectives			
covered:			
2.3 Given a scenario,			
analyze data to			
prioritize			
vulnerabilities.			
	Lesson 6: Practice	Lesson 6: Practice	Assisted Lab:
	Questions	Questions	APPLIED LAB:
Lesson 7:			
Communicating			
Vulnerability			
Information			
Topic 7A: Explaining	Review Activity:	Review Activity:	Assisted Lab:
Effective	Effective	Effective	Analyzing
Communication	Communication	Communication	Vulnerability Scans
Concepts	Concepts	Concepts	
France abientions			
Exam objectives			
covered:			
4.1 Explain the			
importance of			
vulnerability			
management			
reporting and			
communication.			
TOPIC 7B.	• video: The	Video: The importance	Assisted Lab: Detecting Legenry
Vulnorability	Importance of	of vulnerability	Sustants
Penerting Outcomes	Vulnerability	Management Reporting	Systems
and Action Plans	Management	and Communication	
and Action Flans	Reporting and	Review Activity:	
Ever objectives	Communication	Vulnerability Reporting	
exumobjectives	PBQ: Performing	Outcomes and Action	
	Vulnerability	Plans	
2.5 Explain concepts	Assessment		
	Review Activity:		
response, nanaling,	Vulnerability		
	, Reporting Outcomes		
A 1 Explain the	and Action Plans		
importance of			
vulnerahility			
management			
reporting and			
communication.			

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	Lesson 7: Practice	Lesson 7: Practice	
	Questions	Questions	
Lesson 8: Explaining Incident Response Activities			
Topic 8A: Exploring Incident Response PlanningExam objectives covered: 3.2 Given a scenario, perform incident response activities.3.3 Explain the 	 Video: Preparing for Post-Incident Activity Phases Review Activity: Incident Response Planning 	 Video: Preparing for Post-Incident Activity Phases Review Activity: Incident Response Planning 	 ADAPTIVE LAB: Performing Playbook Incident Response APPLIED LAB: Performing IoC Detection and Analysis
<i>importance of incident</i> <i>response reporting</i> <i>and communication.</i>			
Topic 8B: Performing Incident Response Activities <i>Exam objectives</i> <i>covered:</i> <i>3.2 Given a scenario,</i> <i>perform incident</i> <i>response activities.</i>	Review Activity: Incident Response Activities	Review Activity: Incident Response Activities	 APPLIED LAB: Performing Post- Incident Forensic Analysis APPLIED LAB: Collecting Forensic Evidence
	Lesson 8: Practice	Lesson 8: Practice	
	Questions	Questions	
Lesson 9: Demonstrating Incident Response Communication			

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Topic 9A: Understanding Incident Response Communication <i>Exam objectives</i> <i>covered:</i> <i>4.2 Explain the</i> <i>importance of incident</i> <i>response reporting</i> <i>and communication.</i>	 PBQ: Performing Incident Response Reporting Review Activity: Incident Response Communication 	Review Activity: Incident Response Communication	
Topic 9B: Analyzing Incident Response Activities <i>Exam objectives</i> <i>covered:</i> <i>3.2 Given a scenario,</i> <i>perform incident</i> <i>response activities.</i> <i>4.2 Explain the</i> <i>importance of incident</i> <i>response reporting</i> <i>and communication.</i>	 Video: Executing Incident Response Reporting and Communication Review Activity: Incident Response Activities 	 Video: Executing Incident Response Reporting and Communication Review Activity: Incident Response Activities 	 Assisted Lab: Performing Root Cause Analysis
	Lesson 9: Practice Questions	Lesson 9: Practice Questions	
Lesson 10: Applying Tools to Identify Malicious Activity			
Topic 10A: Identifying Malicious Activity <i>Exam objectives</i> <i>covered:</i> 1.3 Given a scenario, <i>use appropriate tools</i> <i>or techniques to</i> <i>determine malicious</i> <i>activity.</i>	 Review Activity: Malicious Activity PBQ: Utilizing Digital Forensics and Indicator Analysis Techniques PBQ: Analyzing Malicious Activity 	Review Activity: Malicious Activity	 Assisted Lab: Using File Analysis Techniques Assisted Lab: Analyzing Potentially Malicious Files APPLIED LAB: Using Network Sniffers
Topic 10B: Explaining Attack Methodology Frameworks	Video: Performing Threat Management Activities	 Video: Performing Threat Management Activities 	

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Exam objectives covered: 3.1 Explain concepts related to attack methodology frameworks.	 Review Activity: Attack Methodology Frameworks 	 Review Activity: Attack Methodology Frameworks 	
Topic 10C: Explaining Techniques for Identifying Malicious Activity Exam objectives covered: 1.3 Given a scenario, use appropriate tools or techniques to determine malicious activity.	 Review Activity: Techniques for Identifying Malicious Activity PBQ: Identifying Malicious Activity 	 Review Activity: Techniques for Identifying Malicious Activity 	 APPLIED LAB: Researching DNS and IP Reputation
	Lesson 10: Practice Ouestions	Lesson 10: Practice Ouestions	
Lesson 11: Analyzing Potentially Malicious Activity	Questions		
Topic 11A: Exploring Network Attack Indicators <i>Exam objectives</i> <i>covered:</i> 1.2 Given a scenario, analyze indicators of potentially malicious activity.	 Video: Analyzing Beaconing Traffic Video: Irregular Peer- to-Peer Communication Intrusion IOCs Review Activity: Network Attack Indicators 	 Video: Analyzing Beaconing Traffic Video: Irregular Peer-to- Peer Communication Intrusion IOCs Review Activity: Network Attack Indicators 	
Topic 11B: Exploring Host Attack Indicators <i>Exam objectives</i> covered: 1.2 Given a scenario, analyze indicators of potentially malicious activity.	Review Activity: Host Attack Indicators	Review Activity: Host Attack Indicators	

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Course OutlineTopic 11C: ExploringVulnerabilityAssessment ToolsExam objectivescovered:1.2 Given a scenario,analyze indicators ofpotentially maliciousactivity.2.2 Given a scenario,	 CertMaster Learn Video: Analyzing Output from Topology and Host Enumeration Tools Video: Analyzing Output from Fingerprinting Scans PBQ: Exploring Vulnerability Assessment Tools Review Activity: Vulnerability 	 Student Guide eBook Video: Analyzing Output from Topology and Host Enumeration Tools Video: Analyzing Output from Fingerprinting Scans Review Activity: Vulnerability Assessment Tools 	 CertMaster Labs Assisted Lab: Using Nontraditional Vulnerability Scanning Tools
analyze output from vulnerability assessment tools	Assessment Tool's		
	Lesson 11: Practice Questions	Lesson 11: Practice Questions	
Lesson 12: Understanding Application Vulnerability Assessment			
Topic 12A: Analyzing Web Vulnerabilities <i>Exam objectives</i> <i>covered:</i> 2.2 Given a scenario, analyze output from vulnerability assessment tools.	 Video: Analyzing Burp Suite Output Review Activity: Analyzing Web Vulnerabilities 	 Video: Analyzing Burp Suite Output Review Activity: Analyzing Web Vulnerabilities 	APPLIED LAB: Performing Web Vulnerability Scanning
Topic 12B: Analyzing Cloud Vulnerabilities <i>Exam objectives</i> covered: 2.2 Given a scenario, analyze output from vulnerability assessment tools.	 Video: Analyzing ScoutSuite Output Review Activity: Analyzing Cloud Vulnerabilities PBQ: Analyzing Cloud Vulnerability Assessment Output 	 Video: Analyzing ScoutSuite Output Review Activity: Analyzing Cloud Vulnerabilities 	 Assisted Lab: Analyzing Cloud Vulnerabilities
	Lesson 12: Practice Questions	Lesson 12: Practice Questions	
Lesson 13: Exploring Scripting Tools and Analysis Concepts			

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Topic 13A:	Review Activity:	Review Activity:	
Understanding	Programming	Programming Languages	
Scripting Languages	Languages		
	PBO: Identifying		
Exam objectives	Programming		
covered:			
1.2 Given a scenario,	Languages		
analyze indicators of			
potentially malicious			
activity.			
1.2 Civer a coordinatio			
1.3 Given a scenario,			
ar tachniquas to			
or lechniques lo			
Topic 12P: Identifying	Boviou Activity:	Boviow Activity:	
Malicious Activity	Review Activity.	Review Activity:	
Through Analysis			
The ough Analysis		Through Analysis	
Exam objectives	PBQ: Identifying		
covered:	Malicious Activity		
1.2 Given a scenario.	through Analysis		
analyze indicators of			
potentially malicious			
activity.			
1.3 Given a scenario,			
use appropriate tools			
or techniques to			
determine malicious			
activity.			
Lesson 14:			
Understanding			
Application Security			
and Attack Mitigation			
Best Practices			
Secure Software	Review Activity:	Review Activity: Secure	Assisted Lab: Evoloiting Moole
Development	Secure Software	Software Development	
Development	Development	Practices	CLANCRIGHTA
	Practices		
Exam objectives			
covered:			
2.5 Explain concepts			
related to vulnerability			

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response, handling, and management. 3.1 Explain concepts related to attack methodology frameworks.			
Topic 14B:RecommendingControls to MitigateSuccessful ApplicationAttacksExam objectivescovered:2.4 Given a scenario,recommend controlsto mitigate attacksand softwarevulnerabilities.2.5 Explain conceptsrelated to vulnerabilityresponse, handling,	 Video: Analyzing Vulnerabilities & Recommending Risk Mitigations Review Activity: Controls to Mitigate Successful Application Attacks PBQ: Applying Security Solutions for Software Assurance 	 Video: Analyzing Vulnerabilities & Recommending Risk Mitigations Review Activity: Controls to Mitigate Successful Application Attacks 	 Assisted Lab: Performing Directory Traversal and Command Injection Assisted Lab: Performing XSS Assisted Lab: Performing LFI/RFI Assisted Lab: Performing SQLi Assisted Lab: Performing CSRF
and management. Topic 14C: Implementing Controls to Prevent Attacks Exam objectives covered: 2.4 Given a scenario, recommend controls to mitigate attacks and software vulnerabilities.	Review Activity: Controls to Mitigate Successful Attacks	Review Activity: Controls to Mitigate Successful Attacks	 Assisted Lab: Performing Privilege Escalation APPLIED LAB: Exploiting Security Misconfiguration
	Final Assessment	Final Assessment	
	 Strengths and Weaknesses Dashboard Flashcards Game Center 	 Strengths and Weaknesses Dashboard 	

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Student Resources	 Mapping Course Content to CompTIA 	 Mapping Course Content to CompTIA 	
	CySA+ CS0-003 (pdf)	CySA+ CS0-003 (pdf)	
Instructor Resources	 CySA+ CSO-003 (pdf) Presentation Planner for CySA+ CSO-003 (xlsx) Transition Guide for Official CompTIA CySA+ Exam CSO-002 to Official CompTIA CySA+ CSO-003 (pdf) Onboarding Guide for Official CompTIA CySA+ CSO-003 content (pdf) Mapping Course Content to CompTIA 	 CySA+ CSO-003 (pdf) Presentation Planner for CySA+ CSO-003 (xlsx) Transition Guide for Official CompTIA CySA+ Exam CSO-002 to Official CompTIA CySA+ CSO-003 (pdf) Onboarding Guide for Official CompTIA CySA+ CSO-003 Content (pdf) Mapping Course Content to CompTIA CySA+ CSO-003 (pdf) Instructor PowerPoint 	
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	PowerPoint Presentations for CvSA+ CS0-003 (zip)		



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