



## Leading Effective Vulnerability Management Programs (SEC-516)

- 5 Days
- Lecture and Hands-on Labs

### Course Overview

This course delivers a modern, hands-on approach to vulnerability management tailored for cloud-native and DevOps environments. Emphasizing proactive security and DevSecOps practices, it equips students to identify, assess, and remediate vulnerabilities across applications, APIs, and cloud configurations.

Students will learn to incorporate static, dynamic, and interactive testing into CI/CD pipelines, use threat intelligence and scanning tools, and produce actionable vulnerability reports using Python and Excel. Through labs, leadership modules, and real-world case studies, the course also focuses on team building, risk communication, and driving security-forward culture within technical organizations.

By the end of this course, you will be able to:

- Design and manage a scalable vulnerability management lifecycle

- Integrate security into DevOps workflows for proactive remediation
- Communicate risks clearly across technical and business teams
- Lead vulnerability management teams and shape security-minded culture

Review this course online at <https://www.alta3.com/courses/leading-vm>

### Who Should Attend

- Security Managers
- DevOps/DevSecOps Engineers
- IT Security Analysts
- Cloud Infrastructure Leaders

### What You'll Learn












- Understand cloud infrastructure and DevSecOps security practices
- Manage vulnerabilities using risk-based approaches and CI/CD integration
- Apply DAST and SAST for application, API, and database security
- Develop leadership and communication skills in cybersecurity operations

### Outline



Day 01 - Foundations of Vulnerability Management

-  Lecture: Course Overview














## What is Vulnerability Management

-  Lecture: aaS
-  Lecture: Assets
-  Lecture: Cloud Assets
-  Lecture + Lab: Assets
-  Lecture: Grouping Assets
-  Lecture: Scope
-  Lecture + Lab: Configuration Management Database
-  Lecture: Improving Current Vulnerability Management
-  Lecture: Stakeholders
-  Lecture: Requirements
-  Lecture: Permissions

## What Business Are You in

-  Lecture: Mission Vision
-  Lecture: History





## Day 02 - Vulnerability Identification and Assessment






-  Lecture: What are Vulnerabilities
-  Lecture: Vulnerability Management Life Cycle
-  Lecture + Lab: Buffer Overflow Simulation
-  Lecture: Identifying Threats
-  Lecture: Scanning and IP Mapping
-  Lecture + Lab: NMAP a Vulnerable System
-  Lecture: Cloud Vulnerability
-  Lecture: Tools
-  Lecture: Threat Intel Feeds
-  Lecture: Bug Bounties
-  Lecture + Lab: Bug Bounties and VDPs
-  Lecture: Penetration Testing
-  Lecture: Communication of Impact

## Day 03 - Contextualization, Reporting, and Remediation







-  Lecture: Trusting Results
-  Lecture: Communication of Threats
-  Lecture: Risk Based Vulnerabilities
-  Lecture: Continual Reporting
-  Lecture: Metrics
-  Lecture + Lab: Creating Reports with Python Code
-  Lecture + Lab: Report in Word Format
-  Lecture: Demo Kali Linux
-  Lecture: What is Patching
-  Lecture: Image Management
-  Lecture: DevOps and DevSecOps
-  Lecture + Lab: DevSecOps

## Day 04 - Integrating Vulnerability Management

-  Lecture: DevOps in Practice
-  Lecture + Lab: Idempotent Ansible - Patch Windows
-  Lecture: Many Levers One Goal
-  Lecture: Organizational Buy in for Change Management

-  Lecture: Maintenance
-  Lecture: Alternate Strategies
-  Lecture: Communication Strategies
-  Lecture: Meeting Strategies
-  Lecture: Integration of Vulnerability Management

#### Day 05 - Building and Leading VM Teams

-  Lecture: Leadership
-  Lecture: Effective Leaders
-  Lecture: Vulnerability Management Best Practices
-  Lecture: Building a Team
-  Lecture: Maintain Relevance
-  Lecture: Enabling and Shaping Organizational Culture

#### Next Courses

- Leading Effective Security Operations Centers (SEC-551)
- Security Leadership: Strategy, Policy & Planning (SEC-514)