

E-HOOYIA

Engineering and Security
Architecture

Presented by:
Hooyia



+237 691435485
+237 697907096

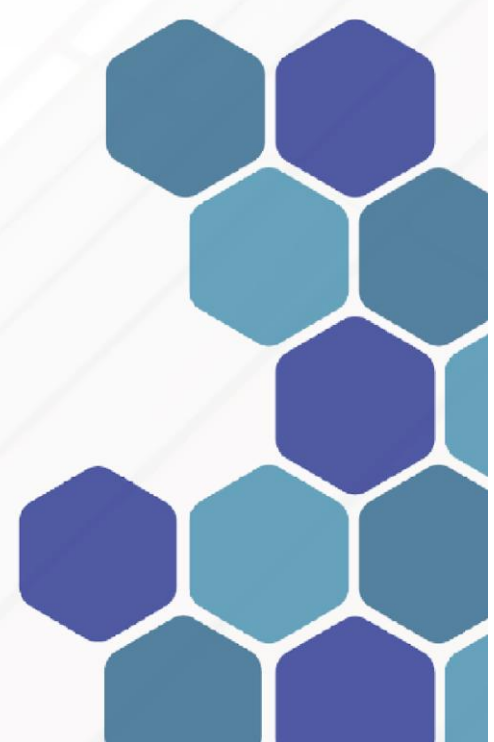


e-hooyia.com



Bafoussam, Cameroon

contact@e-hooyia.com



Module 4: Engineering and Security Architecture	2
Course Overview	2
Targeted Audience.....	2
Module Objectives	2
Course Structure	3

Module 4: Engineering and Security Architecture

Course Overview

This module is centered on the practical, hands-on application of cybersecurity principles in the design and implementation of modern infrastructures. It is a highly technical course that focuses on how to build, deploy, and maintain secure systems from the ground up. The curriculum places a strong emphasis on current industry trends, including integrating security into the development lifecycle (DevSecOps) and securing complex cloud environments. The program's inclusion of these forward-looking topics confirms that the curriculum is relevant and addresses the most pressing and emerging challenges in the industry. It prepares professionals not just for today's jobs but for the demands of the future, where security must be an intrinsic part of every system's architecture.

Targeted Audience

This module is for technical professionals responsible for building and maintaining secure systems. It is an excellent fit for those pursuing careers as a Security Architect, Security Engineer, DevSecOps Engineer, Cloud Security Engineer, or an IAM Specialist.¹

Module Objectives

Upon successful completion of this module, participants will be able to:

- Design secure architectures for networks, applications, and cloud-based systems.¹
- Implement and manage a range of security solutions, including firewalls, VPNs, EDR, WAF, and SIEM systems.¹
- Integrate security into the DevOps cycle and establish secure CI/CD pipelines (DevSecOps).¹
- Apply best practices for securing major cloud platforms, such as AWS, Azure, and GCP.¹
- Master the principles of Identity and Access Management (IAM), from strong authentication to implementing a Zero Trust security model.¹

Course Structure

This module follows a logical progression from architectural design to implementation and modern practices.

- **Week 1: Secure Architecture Design & Foundational Solutions**
 - Principles of secure architecture design for network and application layers.
 - Selecting and implementing core security solutions like firewalls and VPNs.
- **Week 2: Cloud Security & Modern Solutions**
 - Strategies for securing data and applications on AWS, Azure, and GCP.
 - Implementation of advanced solutions like EDR and Web Application Firewalls (WAF).
 - Case studies in secure cloud deployment.
- **Week 3: DevSecOps & Advanced Identity Management**
 - Integrating security practices into the continuous integration/continuous delivery (CI/CD) pipeline.
 - In-depth look at Identity and Access Management (IAM) and its role in modern security.
 - Introduction to the Zero Trust security model and its implementation.