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Learning Style: Online Instructor-Led

Technology: EC-Council

Difficulty: Intermediate

Course Duration: 5 Days

EC-Council Certified Cloud Security Engineer (CCSE)



About This Course:

The EC-Council Certified Cloud Security Engineer (CCSE) certification validates the skills needed to plan, configure, implement, and maintain a secure cloud environment across AWS, Microsoft Azure, and Google Cloud Platform (GCP). This CCSE instructor-led training delivers a structured, hands-on learning experience covering platform and infrastructure security, application and data security, security

operations, and incident response. Through this CCSE virtual bootcamp, students gain practical, lab-based experience securing multi-tenant cloud infrastructure, configuring identity and access management, protecting data at rest and in transit, and performing cloud penetration testing and forensic investigations. The course also covers governance, risk management, compliance, and business continuity planning across major cloud providers, giving students a well-rounded foundation for a cloud security career.

Course Objectives:

? Introduction to Cloud Security

? Platform and Infrastructure Security in the Cloud

? Application Security in the Cloud

? Data Security in the Cloud

? Security Operations in the Cloud

? Penetration Testing in the Cloud

? Incident Response in the Cloud

? Forensic Investigation in the Cloud

? Business Continuity and Disaster Recovery in the Cloud

? Governance, Risk Management, and Compliance in the Cloud

Audience

? Network & Cybersecurity Professionals Expanding into Cloud Security

? Cloud Administrators and Engineers

Prerequisites

- Working knowledge of network security management and a basic understanding of cloud computing concepts is recommended.

Course Outline:

Module 1: Introductio

n to Cloud Security	
? Understand Cloud Computing Fundamentals ? Understand Cloud Security Objectives and Issues ? Understand Cloud Security Insights ? Evaluate CSPs for Security before Consuming a Cloud Service ? Discuss Security Shared Responsibility Model in Amazon Cloud (AWS) ? Discuss Security Shared Responsibility Model in Microsoft Azure Cloud ? Discuss Security Shared Res	

ponsibility Model in Google Cloud Platform (GCP)	
Module 2: Platform and Infrastructure Security in Cloud	
? Understand Cloud Platform and Infrastructure	
? Understand the Risks and Threats Associated with Cloud Platform and Infrastructure	
? Learn how to Secure the Key Components of Cloud Platform and Infrastructure	
? Learn how to Design a Secure Data Center in Cloud	
? Understand Cloud Platform and Infrastr	

ucture Security in AWS ? Learn how to Implement Cloud Platform and Infrastructure Security in AWS ? Understand Cloud Platform and Infrastructure Security in GCP ? Learn how to Implement Cloud Platform and Infrastructure Security in Google ? Understand Cloud Platform and Infrastructure Security in Microsoft Azure ? Learn to Implement Cloud Platform and Infrastructure Security in Microsoft Azure	

Module 3: Application Security in Cloud	? Understand Cloud Application Security ? Discuss Cloud Application Security Risks ? Understand Secure Software Development Lifecycle (SSDLC) of Cloud Applications ? Understand DevOps and Continuous Integration/ Continuous Deployment (CI/CD) ? Discuss Cloud Application Security Controls ? Understand Application Security Features in AWS ? Learn How to Implement

Application Security in AWS ? Understand Application Security Features in Azure ? Learn How to Implement Application Security in Azure ? Understand Application Security Features in GCP ? Learn How to Implement Application Security in GCP	
Module 4: Data Security in Cloud ? Understand Data Security in Cloud ? Discuss Cloud Data Storage Fundamentals ? Understand the Cloud Storage Architecture	

and Life Cycle Phases ? Evaluate the Risks, Attacks, and Issues in Cloud Data Storage ? Understand Data Security Strategies and Technologies in the Cloud ? Discuss Information Rights Management Systems ? Discuss Data Retention and Archiving Strategies ? Discuss Storage and Analysis of Data Events ? Understand Storage Services in Amazon Web Services (AWS) ? Learn how to Implement Data

Security in Amazon Web Services (AWS) ? Understand Storage Services in Google Cloud Platform (GCP) ? Learn how to Implement Data Security in Google Cloud Platform (GCP) ? Understand Storage Services in Microsoft Azure ? Learn how to Implement Data Security in Microsoft Azure	
Module 5: Security Operations in Cloud ? Discuss Cloud Security Operations ? Understand Elements	

(Standards and Methods) in Cloud Data Center Physical/Logical Operations ? Learn Security Operations to Build Cloud Infrastructure ? Learn How to Perform Security Operations for Cloud Infrastructures ? Learn Security Operations to Manage Cloud Infrastructure ? Discuss Security Configurations Management for Cloud Infrastructure ? Learn to Monitor Security Operations for Cloud Infrastructure ? Understand Security Operations in Microsoft Azure ? Learn	

to Implement Security Operations in Microsoft Azure ? Understand Security Operations in Amazon Web Services (AWS) ? Learn to Implement Security Operations in Amazon Web Services (AWS) ? Understand Security Operations in Google Cloud Platform (GCP) ? Learn to Implement Security Operations in Google Cloud Platform (GCP)	
Module 6: Penetration Testing in Cloud ? Understand the Scope	

of Cloud Penetration Testing ? Learn Generic Penetration Testing Steps in the Cloud ? Learn AWS-Specific Penetration Testing Steps ? Learn Azure-Specific Penetration Testing Steps ? Learn GCP-Specific Penetration Testing Steps
Module 7: Incident Response in Cloud ? Understand Cloud Incident Response ? Understand Cloud Incident Response Lifecycle ? Understand How SOAR Accelerates

Incident Response ? Discuss Security Incident Response in AWS ? Discuss AWS Investigation and Detection Tools ? Discuss Security Incident Response in Microsoft Azure Cloud ? Discuss Security Incident Response in Google Cloud Platform (GCP) **Module 8: Forensic Investigation in Cloud** ? Discuss Cloud Forensics ? Learn how to Investigate Security Incidents in Amazon Web Services (AWS) ? Learn how to

Investigate Security Incidents in Microsoft Azure ? Learn how to Investigate Security Incidents in Google Cloud Platform (GCP) **Module 9: Business Continuity and Disaster Recovery in Cloud** ? Discuss Cloud Disaster Recovery and Business Continuity ? Learn to Design Disaster Recovery and Business Continuity in Cloud ? Learn to Architect Recovery and Resilience in AWS ? Learn to Implement Recovery and	

Resilience in AWS ? Understand Business Continuity and Disaster Recovery in Microsoft Azure ? Learn Disaster Recovery Configurations in Azure ? Learn to Implement BC/DR with Azure SQL Database ? Learn to Configure BCDR for Azure Stack Edge VPN ? Understand Various Disaster Recovery Scenarios in Azure ? Learn to Implement BCDR in Azure ? Discuss Azure Partner Solutions for BCDR	

? Discuss BC/DR in Google Cloud Platform (GCP)

? Discuss GCP Resources for Disaster Recovery (DR) and Business Continuity Plan (BCP)

? Understand Disaster Recovery for Data in GCP

? Understand Disaster Recovery for Applications in GCP

? Learn to Architect DR for Cloud Infrastructure Outages

? Learn to Implement BCDR in Google Cloud Platform (GCP)

? Discuss Partners Solutions for Implementing BCDR

in GCP	
Module 10: Governance, Risk Management, and Compliance in Cloud	? Understand GRC in the Cloud ? Discuss Cloud Governance ? Learn to Implement and Maintain Governance for Cloud Computing ? Discuss Risk Management in the Cloud ? Discuss Risk Management Framework and Process in the Cloud ? Understand Cloud Compliance ? Learn to Implement GRC in the Cloud

? Understand GRC in Amazon Web Services (AWS)

? Understand GRC in Azure

? Understand GRC in Google Cloud Platform (GCP)

Module 11: Standards, Policies, and Legal Issues in Cloud

? Understand Laws Impacting Cloud Computing

? Learn the Cloud Computing Standards

? Describe the Legal Frameworks for Data Protection and Privacy

? Learn Audit Planning and Reporting in

the Cloud ? Describe Outsourcing and Vendor Management ? Understand Standards, Policies, and Auditing in AWS ? Understand Standards, Policies, and Auditing in Azure ? Understand Standards, Policies, and Auditing in GCP