

Cloud Security Specialist

OEM: Arcitura • Duration: 3 Days (24 hrs) • Code: C90.SEC

COURSE MODULES & TOPICS

Module 1: Fundamental Cloud Computing

- Fundamental Cloud Computing Terminology and Concepts
- Basics of Virtualization
- Specific Characteristics that Define a Cloud
- Understanding Elasticity, Resiliency, On-Demand and Measured Usage
- Benefits, Challenges and Risks of Contemporary Cloud Computing Platforms and Cloud Services
- Cloud Resource Administrator and Cloud Service Owner Roles
- Cloud Service and Cloud Service Consumer Roles
- Understanding the Software as a Service (SaaS) Cloud Delivery Model
- Understanding the Platform as a Service (PaaS) Cloud Delivery Model
- Understanding the Infrastructure as a Service (IaaS) Cloud Delivery Model
- Combining Cloud Delivery Models
- Public Cloud, Private Cloud, Hybrid Cloud and Community Cloud Deployment Models
- Business Cost Metrics and Formulas for Comparing and Calculating Cloud and On-Premise Solution Costs
- Formulas for Calculating and Rating SLA Quality of Service Characteristics

Module 2: Cloud Technology Concepts

- Cloud Computing Mechanisms that Establish Architectural Building Blocks
- Virtual Servers, Containers, Ready-Made Environments, Failover Systems and Pay-Per-Use Monitors
- Automated Scaling Listeners, Multi-Device Brokers and Resource Replication
- Understanding How Individual Cloud Computing Mechanisms Support Cloud Characteristics
- An Introduction to Containerization, Container Hosting and Logical Pod Containers
- A Comparison of Containerization and Virtualization
- Cloud Balancing and Cloud Bursting Architectures
- Common Risks, Threats and Vulnerabilities of Cloud-based Services and Cloud-hosted Solutions
- Cloud Security Mechanisms used to Counter Threats and Attacks
- Understanding Cloud-Based Security Groups and Hardened Virtual Server Images
- Cloud Service Implementation Mediums (including Web Services and REST Services)
- Cloud Storage Benefits and Challenges, Cloud Storage Services, Technologies and Approaches
- Non-Relational (NoSQL) Storage Compared to Relational Storage
- Cloud Service Testing Considerations and Testing Types

- Service Grids and Autonomic Computing
- Cloud Computing Industry Standards Organizations

Module 7: Fundamental Cloud Security

- Cloud Security Basics
- Common Cloud Security Mechanisms
- Cloud Security Threats
- Cloud Security Threat Categorization Methodology
- Identification and Treatment of Common Threats
- Cloud Network Security Patterns and Supporting Mechanisms
- Securing Network Connections and Cloud Authentication Gateways
- Collaborative Monitoring and Logging
- Independent Cloud Auditing
- Cloud Identity and Access Management Patterns and Supporting Mechanisms
- Federating and Enabling Secure Interoperability among Cloud Consumers
- Trust Assurance Patterns and Supporting Mechanisms
- Trust Attestation and Establishing Trustworthiness

Module 8: Advanced Cloud Security

- Cloud Service Security Patterns and Supporting Mechanisms
- Virtual Machine Platform Protection Patterns
- Considerations for Setting Up Secure Ephemeral Perimeters
- Trusted Cloud Resource Pools and Cloud Resource Access Control
- Permanent Data Access Loss Protection
- Cloud Data Breach Protection
- Isolated Trust Boundaries
- The Attack Lifecycle and the Security Lifecycle
- Proactive Mitigation vs. Incidence Response
- Threats, Vulnerabilities, Impacts from Exploitation
- Threat Modeling, Threats and Mitigations

Module 9: Cloud Security Lab

- Reading Exercise 9.1: Case Study Background IAM in the Cloud
- Lab Exercise 9.2: Cloud Identity and Access Management (IAM) Environment Setup
- Lab Exercise 9.3: PKI in the Cloud
- Lab Exercise 9.4: Budget Banking Data Breach
- Lab Exercise 9.5: Cloud Data Encryption and Key Management
- Lab Exercise 9.6: ACE Telecommunications Move to the Cloud
- Lab Exercise 9.7: Cloud Service Protection Architecture
- Reading Exercise 9.8: Case Study Background Big Box Retailer Breach
- Lab Exercise 9.9: Networking Security
- is authored by a dedicated courseware development team

- has a self-test, accreditation exam and professional certification
- is available via two different eLearning platforms
- undergo a common development process
- are authored to be consistent in quality, structure and style
- share a common vocabulary and symbol notation
- are authored in collaboration with subject matter experts
- About Arcitura
- Instructor-Led Training & Coaching
- eLearning with Arcitura
- Course & Certification Tracks
- Exams & Proctoring
- Digital Accreditations
- Trainer Development
- Partner Program
- Partner Portal
- Privacy Policy
- Candidate Agreement
- Logo Guidelines
- Contact
- Help
- Arcitura on LinkedIn