

Real Training. Real Practice. Real Results.



Cloud Architect



Prerequisites

Students are not required to have specific experience in cloud architecture but a four-year degree from an accredited school is preferred although not required.



Program Goals

This program is well suited for IT and related professionals who desire to master cloud applications and architecture. It will allow the student to gain in depth knowledge in order to design, plan, manage and secure cloud solutions while facilitating a deep understanding of the applicability to the cloud environment. Students will work on real world cloud design issues for state-of-the-art open source technologies, including accessibility to a production-ready cloud environment to fully exercise the skills required to design, setup, configure, and optimize a cloud computing environment.

This course emphasizes AWS cloud best practices and recommended design patterns to help students analyze the process of creating optimal IT solutions on AWS. Case studies throughout the course showcase how some AWS and Azure Cloud customers have designed their infrastructures and the strategies and services they implement.



Professional Objectives

The student will develop technical skills and knowledge of the best practices to customize effective solutions. Over the course of the program, the student will develop the following skills

- Evaluate and assess the impact of cloud computing on service management
- Design effective cloud computing solutions that take into account an organization's structure, operational business processes, financial management and cost model implications
- Manage the process of migrating and transitioning to a cloud environment
- Implement cloud computing architecture solutions that address cloud security and compliance fundamentals, deployment automation and elastic sizing of environments, and multi-tenant implications.
- Leverage AWS services to make your infrastructure scalable, reliable, and highly available.
- Identify all aspects of cloud computing like virtualization, resource management, security and business continuity.
- Understand methods and tools to maintain security and protect data.



Curriculum:

- **CLO 1003:** Cloud Architect | 40 hours
- **CLO 1004:** Cloud Security | 40 hours
- **NET 1002:** Introduction to Networking | 40 hours
- **NET 1003:** Introduction to Routing & Switching | 40 hours
- **ISA 1002:** Introduction to Cyber Security | 40 hours
- **MIC 1001:** Microsoft Technology Associate | 40 hours
- **MIC 1002:** Microsoft Solutions Architect | 40 hours
- **Total Program Clock Hours | 280**



Learning Outcomes

Upon completion of the Cloud Architect Program, the graduate will be able to:

- Use AWS for EC2, S3, VPC EBS, Lambda, RDS, DynamoDB and other services
- Architect an infrastructure to manage Amazon services and use CloudWatch and CloudTrail monitoring
- Outline a cost efficient migration plan from on-site to AWS with TCO calculator
- Set controls in place for fault tolerance and disaster recovery by replicating data in several regions and availability zones
- Define access control lists for data privacy and security for data in transit and data at rest
- Configure routers, switches, hubs and work with cables, connectors and more
- Possess a thorough understanding of security groups and permissions to be applied in the cloud infrastructure