

# CAREER PATHWAYS

## Cloud Architect Pathway

### Core Courses

CompTIA Security+ |  
72 hours

Amazon Web Services (AWS)  
Certified Solutions Architect -  
Associate | 72 hours

**Total Cloud Architect Pathway  
Clock Hours | 144 hours**

### Contact Us

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## Program Prerequisites

High School Diploma and basic computer knowledge



## Program Goal

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.



## Educational 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.

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## 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 and hubs, and work with cables, connectors and more
- Possess a thorough understanding of security groups and permissions to be applied in the cloud infrastructure



## Professional Objectives

- Cloud Software Engineer
- Cloud Sales Executive
- Cloud Engineer
- Cloud Developer
- Cloud Systems Administrator
- Cloud Consultant
- Cloud Systems Engineer
- Cloud Network Engineer
- Cloud Product Engineer



## Core Courses

- ISA 1002 CompTIA Security+ | 72 hours
- CLO 1005 Amazon Web Services (AWS) Certified Solutions Architect - Associate | 72 hours
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