

Computing and Information Technology: Networking - Cloud Systems Administration, Associate Applied Science (AAS)

[CITNSA-AAS, 62 Total Credits]

Questions? Contact [Karen Ahern](#).

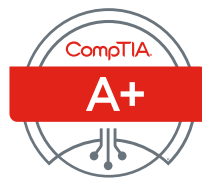


NEW DEGREE! - Effective Term: Fall 2022

This program is designed to provide an opportunity to establish a technical foundation in creating scalable, highly available cloud computing solutions. Students will deploy and maintain multi-cloud services that are responsive to information and computing technology workload needs following best practices in cloud security, cost, and reliability. Coverage includes the management and security of devices and data connecting to cloud services. Graduates are prepared for positions as entry-level Systems Administrator, Cloud Support Specialist, Cloud Technician or Cloud Solutions Architect Associate. This course of study prepares students to take industry-recognized certifications from CompTIA, Microsoft, and Amazon Web Services.

Program Student Learning Outcomes

1. Describe cloud services offered by major cloud service providers to include IaaS, PaaS, SaaS, Public, Hybrid and Private Cloud.
2. Implement cloud business solutions by provisioning computing instances, establishing virtual private networks, managing databases, and storage within a secure cloud environment.
3. Analyze performance metrics of cloud architecture to respond dynamically to information and computing technology workloads and optimize service costs.
4. Implement secure access to cloud-managed organization resources using multi-factor authentication, email encryption, and data retention policies to secure data on devices and in the cloud.
5. Collaborate in a team designing business solutions in an industry-aligned project.



Special Program Requirements (40 Credits)

Course Number	Course Title	Includes Preparation for these Certifications	Credits and Prerequisites
CIT 112	Network+	<i>CompTIA Network+</i>	3 credits
CIT 114	IT Essentials	<i>CompTIA A+</i>	4 credits
CIT 126 NEW Course	Cloud Computing Fundamentals	<i>AWS Cloud Practitioner & Azure Fundamentals</i>	3 credits
CIT 129	Introduction to Programming		3 credits
CIT 173	Introduction to Linux		3 credits
CIT 174	Linux System Administration	<i>Red Hat Certified Systems Administrator RHCSA,</i>	3 credits <i>Prerequisite CIT 173</i>
CIT 180	Database Concepts and SQL		3 credits <i>Prerequisite: CIT 129</i>
CIT 211	Microsoft Operating Systems Management	<i>Microsoft 365 Certified: Modern Desktop Administrator Associate MD 100/101</i>	3 credits
CIT 213	Microsoft 365 Security Administration	<i>Microsoft 365 Certified: Security Administrator Associate. MS-500</i>	3 credits <i>Prerequisite: CIT 211</i>
CIT 214	Microsoft Azure Cloud	<i>Azure Administration Associate AZ-104</i>	3 credits <i>Prerequisite: CIT 211</i>
CIT 217	Security+	<i>CompTIA Security+</i>	3 credits <i>Prerequisite: CIT 112</i>
CIT 288 NEW Course	AWS Cloud Architecting	<i>AWS Solutions Architect Associate</i>	3 credits <i>Prerequisite: CIT 126</i>
CIT 289 NEW Course	Multi-Cloud Administration Capstone*		3 credits <i>Prerequisite: CIT 288, CIT 214</i>

***In CIT 289, students will complete a real-world project created by local industry professionals.**

Digital Literacy Requirement (0-3 Credits)

IS 100 - Core Computing Competency *or* IS 101 - Introduction to Information Systems

General Education Requirements (22 Credits)

See the [degree sheet](#) in the online college catalog for 2022-2023 for details.

1. **Mathematics (3 Credits)** ET 111 (preferred)
2. **English Composition (3-5 Credits)** ENG 101 (preferred) or ENG 100 or ENG 107 or ENG 113
3. **Communications (3 credits)** COM 115 (preferred)
4. **Human Relations (3 credits)** PHIL 135 (preferred)
5. **Natural Science (3 credits)** EGG 131 (preferred)
6. **Fine Arts (3 credits)** any approved course
7. **U.S. and Nevada Constitutions (4-6 Credits)** HIST 100 or PSC 101 (preferred)

Course sequence (Guided Pathway) for full time students:

Semester 1:

Human Relations

Mathematics

CIT 114 - IT Fundamentals

CIT 126 - Cloud Computing Fundamentals

CIT 129 - Introduction to Programming

IS 100 - Core Computing Competency *or* IS 101- Introduction to Information Systems

Semester 2:

English Composition

Fine Arts

CIT 112 - Network+

CIT 180 - Database Concepts & SQL (*prerequisite: CIT 129*)

CIT 211 - Microsoft Operating Systems Management

Semester 3:

U.S. and Nevada Constitution

CIT 173 - Introduction to Linux

CIT 213 - Microsoft 365 Security Administration (*prerequisite CIT 211*)

CIT 214 - Microsoft Azure Cloud (*prerequisite CIT 211*)

CIT 288 - AWS Cloud Architecting (*prerequisite CIT 126*)

Semester 4:

Communications

Natural Science

CIT 174 - Linux System Administration (*prerequisite CIT 173*)

CIT 217 - Security+ (*prerequisite CIT 112*)

CIT 289 - Multi-Cloud Administration Capstone (*prerequisites CIT 286 and CIT 214*)