

## ITCT-119 CLOUD+ 3 CREDITS

### SYLLABUS

---

#### CATALOG DESCRIPTION

An overview in the knowledge and skills required to implement, maintain, and deliver cloud technologies and infrastructures (e.g. server, network, storage, and virtualization technologies), and to understand aspects of IT security and use of industry best practices related to cloud implementations and the application of virtualization. Various models of cloud services and deployments will be discussed. May be preparation for an industry certification exam

Prerequisites: ITCT 115

Semester Offered: On Demand

#### ***COMMON STUDENT LEARNING OUTCOMES***

*Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...*

##### **BROAD AND SPECIALIZED LEARNING**

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

##### **CRITICAL THINKING**

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

##### **CULTURAL AND CIVIC ENGAGEMENT**

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

##### **EFFECTIVE COMMUNICATION**

Students will exchange ideas and information with clarity in multiple contexts.

##### **INFORMATION LITERACY**

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

##### **INTEGRATING TECHNOLOGIES**

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

#### **COURSE LEARNING OUTCOMES**

*Upon successful completion of the course, the student will be able to...*

##### **1.0 Cloud Computing Configurations and Deployments**

##### **1.1 Define Cloud Computing**

- 1.2 Create and Validate a Cloud Deployment
- 1.3 Verify System Requirements
- 2.0 Cloud Deployments**
  - 2.1 Execute a Cloud Deployment
  - 2.2 Match Physical Resources to the Virtualized World of the Cloud
  - 2.3 Configure and Deploy Storage
  - 2.4 Perform a Server Migration
  - 2.5 Manage User Identities and Roles
- 3.0 Security in the Cloud**
  - 3.1 Apply Compliance and Configurations of Cloud Security
- 4.0 Implement Cloud Security**
  - 4.1 Implement Security in the Cloud
  - 4.2 Automate Cloud Security
- 5.0 Maintain Cloud Operations**
  - 5.1 Apply Security Patches
  - 5.2 Update Cloud Elements\
  - 5.3 Analyze Storage Operations
- 6.0 Disaster Recovery, Business Continuity, and Ongoing Maintenance**
  - 6.1 Implement a Disaster Recovery and Business Continuity Plan
  - 6.2 Update Business Continuity
- 7.0 Cloud Management**
  - 7.1 Describe Cloud Metrics
  - 7.2 Add and Remove Cloud Resources
- 8.0 Cloud Management Baselines, Performance, and SLAs**
  - 8.1 Measure Deployment Against the Baseline
- 9.0 Troubleshooting**
  - 9.1 Examine Common Cloud Issues
  - 9.2 Troubleshoot Cloud Capacity Issues
  - 9.3 Troubleshoot Automation and Orchestration
  - 9.4 Troubleshoot Cloud Networking Issues
  - 9.5 Troubleshoot Security Issues
  - 9.6 Troubleshoot Methodology.