



South Central College
Program Design

CERT 3298 Cloud Computing and Virtualization Administration

Program Information

Instructional Level Certificate

Career Cluster Arts, Communications, & Information Systems

Description

This certificate provides a complete introduction to Cloud Computing, virtualization, legacy hardware and software considerations and approaches to transitioning information technology from legacy systems to a shared managed service model. Through practical, hands-on activities, learners will explore the technical infrastructure and administrative requirements of server-based computing utilizing both open source and proprietary virtualization software. Prior to entry into this program, it is strongly recommend that learners should complete the Computer Assistant Certificate of have advanced computer literacy and/or IT related industry experience.

Program Admission Dates (Fall and/or Spring)

Fall or Spring

Program Location (North Mankato and/or Faribault)

North Mankato

Program Student Learning Outcomes

- 1 Analyze a problem, identify and define requirements appropriate to its solution.
- 2 Design and administer computer networks.
- 3 Support common business application software
- 4 Support current operating systems
- 5 Maintain and support Information technology
- 6 Incorporate security measures into infrastructure implementations to manage risk
- 7 Create and maintain documentation

Program Configurations

Fall Start

Credits

Technical Course

12

Total Credits**20****Semester 1 - Fall, Year 1**

Course #	Course Title	Credits	Function
COMP 2453	Virtualization Technologies	4	Technical Course
COMP Option	Technical elective - see advisor	4	Elective

Semester 2 - Spring, Year 1

Course #	Course Title	Credits	Function
COMP 2452	Information Storage and Management	4	Technical Course
COMP 2456	Cloud Technologies and Services	4	Technical Course
COMP Option	Technical elective - see advisor	4	Elective

Spring Start**Credits**

Technical Course

12

Elective

8

Total Credits**20****Semester 1 - Spring, Year 1**

Course #	Course Title	Credits	Function
COMP 2452	Information Storage and Management	4	Technical Course
COMP 2456	Cloud Technologies and Services	4	Technical Course
COMP Option	Technical elective - see advisor	4	Elective

Semester 2 - Fall, Year 1

Course #	Course Title	Credits	Function
COMP 2453	Virtualization Technologies	4	Technical Course
COMP Option	Technical elective - see advisor	4	Elective

Program Course List

Number	Title	Credits	Pre/Corequisites
COMP 2300	Java	4	Successful completion of COMP1130 Programming Fundamentals (with a C grade or higher), or a working knowledge of another programming language.

			Note: Prerequisites ensure that you are at the correct learning level for the course. Please feel free to contact the instructor to help you determine your expertise level if you have not completed the prerequisite courses.
COMP 2312	Software Development	4	Successful completion of COMP 1130 Programming Fundamentals with a C or higher, or a working knowledge of at least one programming language.
COMP 2452	Information Storage and Management	4	COMP 1200 Hardware and Software Essentials
COMP 2453	Virtualization Technologies	4	COMP 1200 Hardware and Software Essentials
COMP 2456	Cloud Technologies and Services	4	COMP 1200 Hardware and Software Essentials
COMP 2460	Linux Administration	4	COMP 1200 COMP 1360
COMP 2462	Microsoft Administration	4	COMP 1360
COMP 2466	Routing & Switching	4	COMP 1360
COMP 2475	Security Basics	4	COMP 1360