

## IT VIRTUALIZATION

# About the IT Virtualization Program

Provides students the skills necessary to support a virtualized data center. The student will be able to manage, configure and troubleshoot common virtualization issues, and install virtual servers, workstations and applications to support the IT data center. This diploma will prepare the student for the VMware Certified Associate - Data Center Virtualization (VCA-DCV) exam.

## PROGRAM OUTLINE

COURSE #	COURSE TITLE	CREDITS
1015011400	Networking 1	3.00
	<p>This course is designed as an introduction to data network technology. It is the first in a series of two courses leading toward Cisco Certified Entry Network Technician (CCENT). Students will gain a basic understanding of routers and switches, their function and how to perform initial configurations in the Internetwork Operating System (IOS) of these devices. Students will setup various LAN hardware to implement a workable local area network to include, subnetting and variable length subnetting. Student will gain a solid foundation in network standards using both the OSI and TCP/IP reference models.</p>	
	<b>Competencies</b>	
10150114C01	Networking 1A	0.50
	<p>This course will explore what a network is in today's world, identify the various networking equipment needed to allow devices to communicate, and introduce the student to how data travels across the network.</p>	
10150114C02	Networking 1B	0.50
	<p>This course will investigate how devices access a network to include the topologies that they use and the network media required to access the network. You will also understand how Ethernet works, what the function is of switches on the network and how the ARP process works to ensure communications on the network.</p>	
10150114C03	Networking 1C	0.50
	<p>This course will explore the Cisco IOS and basic commands, it will look in depth at the network layer of the OSI model and the protocols that reside there. The student will learn initial router and switch commands for configuring interfaces, the boot process of the IOS and the routing process for routers for internetwork communication.</p>	
10150114C04	Networking 1D	0.75
	<p>This course take an in depth look at IP addressing on the Network using both classful and classless (VLSM) addressing Schemes. It explores both IPv4 and IPv6 address schemes.</p>	
10150114C05	Networking 1E	0.25
	<p>This course will explore the Transport, Session, Presentation and Application layers of the OSI model and the protocols that reside at each layer.</p>	
10150114C06	Networking 1F	0.50
	<p>This course will explore network design, Basic Network Security, Network testing and verification tools, and Network troubleshooting tools and techniques.</p>	

COURSE #	COURSE TITLE	CREDITS
1015014700	Emerging Network Technologies Provides learners with, and insight into, the new and emerging technologies that use the network infrastructure to include protocols and virtualization by using the latest tools and techniques. Prerequisite: 1015011400 Networking 1 (C or better).	3.00
<b>Competencies</b>		
10150147C01	Emerging Network Technologies A This course will identify the various versions of software used to implement virtualization and you will install and configure basic server settings for virtualization. Prerequisite: 10150114C06 Networking 1F (B or better).	0.50
10150147C02	Emerging Network Technologies B This course will investigate and implement networking in a virtual environment. Prerequisite: 10150114C06 Networking 1F (B or better).	0.50
10150147C03	Emerging Network Technologies C This course will investigate and implement storage options in a virtual environment. Prerequisite: 10150114C06 Networking 1F (B or better).	0.50
10150147C04	Emerging Network Technologies D This course will explore how to deploy virtual machines and vApps into the virtual environment. Prerequisite: 10150114C06 Networking 1F (B or better).	0.50
10150147C05	Emerging Network Technologies E This course will explore how to protect the virtual machines and infrastructure through clusters, fault tolerance options, and backup and restore strategies. Prerequisite: 10150114C06 Networking 1F (B or better).	0.50
10150147C06	Emerging Network Technologies F This course will identify scenarios and incorporate basic troubleshooting skills to solve the issues. Prerequisite: 10150114C06 Networking 1F (B or better).	0.25
10150147C07	Emerging Network Technologies G This course will design alarms and triggers to monitor servers, virtual machines and operations. Prerequisite: 10150114C06 Networking 1F (B or better).	0.25
1015018000	Server Operating Systems	3.00

COURSE #	COURSE TITLE	CREDITS
	Teaches basic network design, implementation, and management using Windows 2003 Server. Students install networking operating system software for servers. They establish file sharing, print sharing, log-in security, user profiles, create directory structure, implement disaster recovery strategies, configure web services, implement group policies, investigate security controls, and manage and monitor the system for performance. Prerequisite: 1015011400 Networking 1 (C or better).	
<b>Competencies</b>		
10150180C01	Server Operating Systems A  This course investigate the various versions of Microsoft Server operating system and how to install and configure basic settings within the operating system. Prerequisite: 10150114C06 Networking 1F (B or better).	0.50
10150180C02	Server Operating Systems B  This course investigate the concept of Server virtualization and how to configure and use it in a Microsoft environment. Prerequisite: 10150114C06 Networking 1F (B or better).	0.25
10150180C03	Server Operating Systems C  This course will explore active directory, the components of active directory and how to administer active directory in a domain environment. Prerequisite: 10150114C06 Networking 1F (B or better).	1.00
10150180C04	Server Operating Systems D  This course will explore group policy concepts and how to implement group policy objects to control the users work environment. Prerequisite: 10150114C06 Networking 1F (B or better).	0.75
10150180C05	Server Operating Systems E  This course will identify the networking components and how to integrate the server into the network environment. Prerequisite: 10150114C06 Networking 1F (B or better).	0.50

**Total Credits:**

**9.00**

Talk with an Academic Advisor about the program outline. Together, you will determine if credits you've already earned satisfy any requirements, discuss possible alternative courses, and choose the best classes if you're thinking of transferring.

## AT A GLANCE

### How You'll Learn



ONLINE CLASSES MULTIPLE START DATES FLEXIBLE PACE

### 2021 Start Dates

January 6	May 7	September 1
February 1	June 7	October 4
March 1	July 5	November 1

## 2022 Start Dates

January 5	March 1	June 6
February 7	May 2	July 11

[VIEW FULL ACADEMIC CALENDAR](#)

## What is Competency-Based Education?

Competency-Based Education (CBE) is learning at your own pace by mastering competencies through demonstration. Once all competencies for a program have been assessed and mastered, students will earn a certificate, diploma, or degree.

[LEARN MORE ABOUT CBE](#)

## Approximate Cost

**\$1,362\***

\*Based on 10-level courses—materials, books, and fees may be additional

## What You'll Learn

- Understand data center virtualization concepts
- Understand the different virtualization technologies
- Deploy and manage virtual machines
- Manage a virtualized environment

## Your Potential Careers

- Computer Support Specialist
- Technical Support Specialist
- Help-Desk Technician
- Network Administrator
- Systems Administrator

## Median Annual Salary

\$57,734	\$70,470	\$89,497
Local	State	National

EMSI 2020.1

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## Get Started

Your application can be submitted online, it takes just a few minutes to complete.

[APPLY NOW](#)