COURSE DESCRIPTION

Prerequisites: ITNW 1425 or instructor approval.

Implement and support virtualization of clients in a networked computing environment. This course explores installation, configuration, and management of computer virtualization workstation and servers.

This is a 4 credit hour course. (3 lec., 4 lab.)

WECM END-OF-COURSE OUTCOME

The student will get and overview and hands-on experience in the subject of virtualization technology. Virtualization platforms the student will configure are: VMware Workstation 6.5, VMware Server 2.0, Microsoft Virtual PC 2007, Microsoft Virtual Server 2005, and Hyper-V.

The use of virtualization software in a networked server environments to include building virtual networks, implementing high-availability clusters, enhancing performance and security, and using Microsoft Virtual Machine Manager to centralize management of multiple virtual servers.

STUDENT LEARNING OUTCOMES

Upon successful completion of ITNW 1413 Computer Virtualization, student will be able to:

- Describe how virtual machines work and identify the categories of virtualization software
- Install VMware Workstation 6.5 on Windows and Linux
- Add virtual machines to the administrative console
- Use the VMware Server Web-based administrative console
- Work with virtual machines in VMware Server
- Install Microsoft Virtual PC 2007
- Work with menu options in the Virtual PC 2007 administrative console
- Install the Hyper-V role on a Windows Server 2008 host computer
- Work with settings in Hyper-V Manager
- Describe the components that make up virtual networks
- Plan virtual network environments
- Describe backup and recovery concepts for virtual machines
- Describe ways to assess virtual performance
- Describe tools for monitoring performance
COURSE MATERIALS


A student of this institution (El Centro College) is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

**Major Course Requirement**

Students will participate in Discussion Board addressing topics in each chapter.
Students will complete the review questions in each chapter.
Students will complete hands-on projects in each chapter.
Students will produce a Case Study Project paper.
Student will configure Microsoft Virtual PC 2007.
Student will setup a network in virtual environment.
Student will manage a Microsoft Virtual Server environment.

**Subject Matter**

Topics covered in the lecture portion of the course include:

- Introduction to Virtual Computing
- Working with VMware Workstation
- Working with VMware Server
- Working with Microsoft Virtual PC 2007
- Working with Microsoft Virtual Server 2005
- Working with Microsoft Hyper-V
- Working with Virtual Networks
- Working Disaster Recovery and High Availability
- Enhancing Virtual Security and Performance
- Working with Virtual Machine Manager

**Disclaimer**

The provisions contained in this syllabus do not constitute a contract between the student and El Centro College. These provisions may be changed at the discretion of the Coordinator/Instructor. When necessary, appropriate notice of such changes will be given to the student.

The instructor-of-record may provide additional information to enhance the course to meet the needs of the enrolled students, provided that the enhancements do not conflict with the official course syllabus.

**Policies**

Students should click on the links below and read all of these policies.

[General institutional policies](#)
[Course-related institutional policies](#)