SYLLABUS

DIVISION: Business and Engineering Technology   **REVISED:** SPRING 2014

CURRICULA IN WHICH COURSE IS TAUGHT: IST, Information Systems Technology

COURSE NUMBER AND TITLE: **ITN 231 – Introduction to Virtual Desktop Infrastructure.**

CREDIT HOURS: 3**HOURS/WK**

I.   **CATALOG DESCRIPTION:** ITN 231 - Explores the concepts and capabilities of desktop and application virtualization with a focus on the installation, configuration, and management of the virtual desktop and application infrastructure.

II.   **RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES:** ITN 231 will address the following Information Technology Outcomes:

- Implement Information Technology skills required by software applications.
- Apply methodologies to stay current in IT offerings, trends and certifications.
- Apply analytical and problem solving skills for computer system design, planning and support.
- Design, code, test, debug, and document software needed for computer system implementation and maintenance.
- Apply current IT industry standards, protocols, and techniques.
- Use instructional applications and material which could lead towards industry certification.

Please Note: The overall Learner Outcomes from all of the course requirements for the A.A.S. Degrees in IT are more in-depth than those of the Career Studies Certificates. However, the IT courses that are the same in both the A.A.S. Degrees and the Certificate Programs carry the same Learner Outcomes and are identical in content. Please review the DCC Catalog or visit the DCC Web Site for more details.

III.   **REQUIRED BACKGROUND:**   ITN 254

IV.   **COURSE CONTENT:**

- VMware ESXi 5.1 and vCenter 5.1
- Microsoft SQL Express
- VMware Composer
- VMware Horizon View
- Virtual Machine creation and installation
- Network Troubleshooting (vSwitches and IP Routing)

V.   **THE FOLLOWING GENERAL EDUCATION OBJECTIVES WILL BE ADDRESSED IN THIS COURSE.   STUDENTS WILL:**

X	Communication
X	Critical Thinking
	Cultural and Social Understanding Information Literacy
X	Personal Development
X	Quantitative Reasoning
X	Scientific Reasoning

VI. LEARNER OUTCOMES	VII. EVALUATION

Upon conclusion of this course the student will be able to define, discuss, and demonstrate knowledge in the following concepts.	
Configure VMware ESXi 5.1 and Windows 2008 Server	Lab Exercises and written test - Allow student to visually inspect their assigned ESXi Server. Instruct the student to document the role ESXi will play in a VDI environment and determine what requirements exist for a proper installation. Have student install all the necessary Windows 2008 Server VMs needed to support VDI including support for AD, HV, Composer, and SQL. Have student visually inspect their installed Windows 2008 Servers and determine the role each of these servers will play in the overall installation of Horizon View. Identify the basic configuration of ESXi 5.1 Identify the role and requirements of ESXi in a Virtual Desktop Infrastructure. Identify the role Windows 2008 Server has in the installation of Active Directory, Horizon View, Composer, and SQL Server.
Configure VMware vCenter 5.1	Lab Exercises and written test - Have student install vCenter in a Windows 2008 R2 Server. Have student note the IP addressing on 2008 server and ESXi server which will provide the path to vCenter needs to have connectivity to the assigned ESXi host. Utilize the vCenter provided tools to prepare for the automation process of deploying VDI machines Be able to install VMware vCenter Server in a Windows 2008 Server virtual machine (VM). Establish connectivity from vCenter Server to an ESXi host. Utilize the vCenter provided tools to prepare for a VDI environment.
Install/Configure Microsoft 2008 R2 SQL Server Express	Lab Exercises and written test - Have student install 2008 SQL Server Express on their Windows 2008 Server. Have student create default and named Instances for access by ODBC. Have student utilize the Windows ODBC utility and connect to their created Instances. Be able to manage the configuration during install. Configure default and named instances. Configure ODBC on Windows clients.
Install/Configure VMware Composer	Lab Exercises and written test - Have student install VMware Composer and configure default settings. Have student connect Composer to SQL and link the Instance to the software. Be able to install software and configure all settings. Connect Composer to SQL Server Instance.

Install VMware Horizon View	Lab Exercises and written test - Have student install Horizon View software and configure the basic settings to begin deployments. Have student deploy a VM of Windows XP Professional using HV. Have student deploy a VM of Windows XP Professional using Composer. Have student update, remove, and redeploy VMs Be able to install Horizon View software and configure all settings. Deploy VMs from HV. Deploy VMs from HV using Composer. Manage deployed VMs.