

## CAREER STUDIES: VIRTUALIZATION (221.732.71)

The Virtualization career studies certificate program prepares students to install, deploy, configure, manage, secure, and analyze a VMware virtual infrastructure in a networked environment. Graduates can be employed as server administrators, server systems administrators, monitoring operators, local area network administrators, enterprise systems administrators, IT system administrators, enterprise security administrators, or systems architects, along with a growing field of VMware specialists.

This advanced career studies certificate program is designed for working professionals with substantial networking experience. Students must complete the coursework in ITN 101 before entering the program. TCC is a member of the EMC Academic Alliance (EMCAA), which enables students to sit for the EMC Proven Professional Associate certification examination. TCC is an authorized VMware Academic Partner, which enables students to sit for the VMware Certified Professional certification examination upon the completion of ITN 293 – VMware Virtual Infrastructure: Installation and Configuration and ITN 293 – VMware Virtual Infrastructure: Deployment, Security, and Analysis. Additionally, ITN 260 prepares students for the CompTIA Security+ certification examination.

SEMESTER 1			
Course Number	Course Title	Credits	Prerequisite
ITN 171	Unix I	4	
ITN 260	Network Security Basics	4	ITN 101 or substantial networking experience
	<b>SEMESTER TOTAL</b>	<b>8</b>	
SEMESTER 2			
Course Number	Course Title	Credits	Prerequisite
ITN 213	Information Storage and Management	4	ITN 101
ITN 293	VMware Virtual Infrastructure: Installation and Configuration	4	ITN 171 and ITN 260
	<b>SEMESTER TOTAL</b>	<b>8</b>	
SEMESTER 3			
Course Number	Course Title	Credits	Prerequisite
ITN 293	VMware Virtual Infrastructure: Deployment, Security, and Analysis	4	ITN 293 – Installation & Configuration
	<b>SEMESTER TOTAL</b>	<b>4</b>	
	<b>TOTAL MINIMUM CREDITS</b>	<b>20</b>	

## ITN COURSE DESCRIPTIONS

### **ITN 171 Unix I (4 CR)**

Provides an introduction to UNIX operating systems. Teaches login procedures, file creation, UNIX file structure, input/output control, and the UNIX shell.

Lecture 4 hours.

### **ITN 213 Information Storage and Management (4 CR)**

Focuses on advanced storage systems, protocols, and architectures, including Storage Area Networks (SAN), Network-Attached Storage (NAS), Fibre Channel Networks, Internet Protocol SANs (IPSAN), iSCSI, and Content-Addressable Storage (CAS).

Prerequisite: ITN 101

Lecture 4 hours.

### **ITN 293 VMware Virtual Infrastructure: Installation and Configuration (4 CR)**

Explores concepts and capabilities of virtual architecture with a focus on the installation, configuration, and management of a VMware virtual infrastructure, ESX Server, and VirtualCenter. Covers fundamentals of virtual network design and implementation, fundamentals of storage area networks, virtual switching, virtual system management, and engineering for high availability.

Prerequisites: ITN 171 and ITN 260

Lecture 4 hours.

### **ITN 293 VMware Virtual Infrastructure: Deployment, Security, and Analysis (4 CR)**

Focuses on the deployment, security, and analysis of the VMware virtual infrastructure, including scripted installations, advanced virtual switching for security, server monitoring for health and resource management, high-availability management, system backups, and fault analysis.

Prerequisite: ITN 2aa

Lecture 4 hours.

### **ITN 260 Network Security Basics (4 CR)**

Provides instruction in the basics of network security in depth. Includes security objectives, security architecture, security models and security layers, risk management, network security policy, and security training. Includes the give security keys, confidentiality integrity, availability, accountability, and audit ability.

Prerequisite: ITN 101 or substantial networking experience

Lecture 4 hours.