CMP NETWORKING VIRTUAL TECH (CNVT)

CNVT 1000 - Computer Repair A+ Hardware

(3 Credits)

This course covers the installation, configuration and troubleshooting of hardware components. The material is presented to prepare the student for the A+ Core Hardware examination.

Lecture: 2 hours, Lab: 2 hours

CNVT 1010 - Computer Repair A+ Software (3 Credits)

This course covers installation, configuration and troubleshooting of software/operating system components. The material is presented to prepare the student for the A+ OS Technologies examination.

Lecture: 2 hours, Lab: 2 hours

CNVT 1810 - Networking 1 (3 Credits)

Introduction to Networks covers the architecture, structure, functions and components of the Internet and other computer networks. Students achieve a basic understanding of how networks operate and how to build simple Local Area Networks (LAN), perform basic configurations for routers and switches, and implement Internet Protocol (IP).

Lecture: 2 hours, Lab: 2 hours

CNVT 1820 - Networking 2 (3 Credits)

Switching, Routing, and Wireless Essentials (SRWE) covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts. Students learn how to configure and troubleshoot routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks.

Lecture: 2 hours, Lab: 2 hours

Prerequisite(s): CNVT 1810

CNVT 1830 - Networking 3 (3 Credits)

Describes the architecture, components, operations, and security to scale for large, complex networks, including Wide Area Network (WAN) technologies. Emphasizes network security concepts and introduces network virtualization and automation. Students will learn how to configure advanced routing and switching protocols; identify threats and enhance network security; implement IPv4 Access Control Lists (ACLs); configure Network Address Translation (NAT) services; explain virtualization, software defined networking, and automation.

Lecture: 2 hours, Lab: 2 hours

Prerequisite(s): CNVT 1820

CNVT 2030 - Core Networking (5 Credits)

Cisco Certified Network Professional (CCNP) Enterprise: Core Networking (ENCOR) provides students with a broad scope of architectural understanding and implementation skills required by enterprise networks. The course covers switching, routing, wireless, and related security topics along with the technologies that support software-defined, programmable networks. (Spring only)

Lecture: 3 hours, Lab: 5 hours

Prerequisite(s): CNVT 1830

CNVT 2100 - Basic Voice Over Internet Protocol (VoIP) (3 Credits)

This course concentrates on the transmission of Voice Over Internet Protocol (VoIP). Focus is on the transmission of voice over highspeed network connections and quality of service issues and solutions associated with this transmission. VoIP technology, signaling standards, network configuration and queuing are addressed. (Fall only)

Lecture: 2 hours, Lab: 2 hours

Prerequisite(s): CNVT 1830 (may be taken concurrently)

CNVT 2200 - Network Security Hardware (4 Credits)

The Security course provides a next step for individuals who want to enhance their networking skill set to help meet the growing demand for network security professionals. Course introduces the core security concepts and skills needed for the installation, troubleshooting, and monitoring of network devices to maintain the integrity, confidentiality, and availability of data and devices.

Lecture: 3 hours, Lab: 3 hours

Prerequisite(s): CNVT 1820

CNVT 2310 - Desktop Technician

(3 Credits)

In this course, students learn how to install and support desktop applications running under the Microsoft Windows operating system. Applications include the complete Office Suite, Outlook and Internet Explorer. Students learn how to set up standard and custom configurations for these applications. They also learn how to manage security issues and respond to breaches. Troubleshooting problems associated with these applications, including connectivity issues, also are explored. (Fall Only)

Lecture: 2 hours, Lab: 2 hours

CNVT 2400 - Foundations of Cloud Computing (3 Credits)

This course is for individuals who want to develop a fundamental understanding of the Amazon Web Services (AWS) Cloud, independent of any specific technical role. You will learn about AWS Cloud concepts, core AWS services, security, architecture, pricing, and support to build students AWS Cloud knowledge. This course will also help students prepare for the AWS Certified Cloud Practitioner exam.

Lecture: 2 hours, Lab: 2 hours

CNVT 2410 - Cloud Architecture & Security (3 Credits)

This course covers the fundamentals of building Information Technology (IT) infrastructure. The course is designed to teach architects how to optimize cloud services and how these services fit into cloud-based solutions. Architectural solutions can differ depending on industry, type of applications, and size of business. This course emphasizes best practices and recommends various design patterns to help students think through the process of architecting optimal IT solutions. It also presents case studies throughout the course. Students will build a variety of infrastructures via a guided, hands-on approach.

Lecture: 2 hours, Lab: 2 hours