

## CNVT (CMP Networking Virtual Tech)

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### **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. This course may not be used as an elective in the electronics or instrumentation programs. Lecture: 2 hours, Lab: 2 hours - Lab Fee: \$20

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### **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 - Lab Fee: \$20

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### **CNVT 1200 - Introduction to Wireless**

**(3 Credits)**

This course introduces wireless networking over a range of applications, from cell phones to wireless local area networks (WLAN), to broadband wide area network links and satellite. Topics covered include an overview of wireless communication technology, protocol layers, local area network (LAN) hardware, IP addressing, 802.11 standards, MA (Media Access Control) standards, WLAN components, basic security, basic RF theory, antennas and troubleshooting. The student will have hands-on experience with various LAN and WLAN networking components, applications, tools and projects. (Prerequisite: CNVT 1000 or permission of department) Lecture: 2 hours, Lab: 2 hours - Lab Fee: \$20

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### **CNVT 1810 - Networking Technology**

**(3 Credits)**

This course provides students with a thorough understanding of how basic networking components work in a practical hands-on environment utilizing state-of-the-art telecommunications equipment. Lecture: 2 hours, Lab: 2 hours - Lab Fee: \$20

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### **CNVT 1820 - Intermediate Networking**

**(3 Credits)**

This course focuses on networking terminology and protocols, networking standards, LAN, WAN, OSI modules, Ethernet, token ring, FDDI, TCP/IP addressing protocol, dynamic routing and the network administrator's role and function. (Prerequisite or corequisite: CNVT 1810) Lecture: 2 hours, Lab: 2 hours - Lab Fee: \$20

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### **CNVT 1830 - LAN Design and Management**

**(3 Credits)**

This course focuses on advanced networking concepts that enable students to design and implement local area networks and virtual local area networks. (Prerequisite: CNVT 1820) Lecture: 2 hours, Lab: 2 hours - Lab Fee: \$20

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### **CNVT 1840 - WAN Design and Management**

**(3 Credits)**

This course focuses on advanced networking concepts that enable students to design and implement wide area networks. (Prerequisite or corequisite: CNVT 1830) Lecture: 2 hours, Lab: 2 hours - Lab Fee: \$20

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### **CNVT 2010 - Cisco CCNP Route**

**(5 Credits)**

Cisco ROUTE covers specialized routing concepts including advanced IP addressing techniques, CIDR, NAT, DHCP, IP helper addresses, dynamic routing, static routing, default routing, single area OSPF, multi-area OSPF, point-to-multipoint OSPF, multi-area OSPF, EIGRP route summarization, route redistribution, route filters, route maps, policy routing, BGP, IPv6 and network security. (Recommended: Successful completion of CCNA exam and Cisco Certified Academy attendance or demonstrated proficiency using laboratory equipment.) Spring only. Lecture: 3 hours, Lab: 5 hours - Lab Fee: \$20

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### **CNVT 2030 - Cisco CCNP Switch**

**(5 Credits)**

Cisco SWITCH concentrates on advanced concepts of multi-layer switching in a network environment. Topics include switching technologies, LAN Media, Gigabit Ethernet, switch configuration, VLANs, VLAN Trunking Protocol (VTP), Spanning Tree Protocol, multi-layer switching, redundant

routing protocols, multicasting, and restricting network access. (Recommended: Successful completion of CCNA exam and Cisco Certified Academy attendance or demonstrated proficiency using laboratory equipment.) Fall only. Lecture: 3 hours, Lab: 5 hours - Lab Fee: \$20

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**CNVT 2060 - CCNP TSHOOT: Cisco IP Network**

**(5 Credits)**

This course concentrates on advanced concepts of internetwork troubleshooting. Topics include network maintenance and methodologies, troubleshooting processes, troubleshooting tools, maintaining switched and routed solutions, addressing services, performance issues, and network security implementations. (Prerequisites: CNVT 2010, 2030 or equivalent. Recommended: Successful completion of CCNA exam and Cisco Certified Academy attendance or demonstrated proficiency using laboratory equipment.) Lecture: 3 hours, Lab: 5 hours - Lab Fee: \$20

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**CNVT 2100 - Basic Voice Over Internet Protocol (VoIP)**

**(3 Credits)**

This course concentrates on the transmission of voice over the Internet using Internet Protocol (VoIP). Focus is on the transmission of voice over high speed network connections and quality of service issues and solutions associated with this transmission. VoIP technology, signaling standards, network configuration and queuing are addressed. (Prerequisite: CNVT 1830, equivalent experience, or permission of department) Lecture: 2 hours, Lab: 2 hours - Lab Fee: \$20

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**CNVT 2200 - Network Security Hardware**

**(4 Credits)**

This course concentrates on network security procedures and practices as they apply to routed networks. Security threats and their management; intrusion detection; securing networks through hardware devices; Authentication, Authorization and Accounting (AAA); firewall technologies; cryptographic systems and virtual private networks (VPNs) are included. (Prerequisite: CNVT 1840, equivalent experience, or permission of department. Recommended: Successful completion of CCENT exam and Cisco Certified Academy attendance or demonstrated proficiency using laboratory equipment.) Lecture: 3 hours, Lab: 3 hours - Lab Fee: \$20

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**CNVT 2300 - Desktop Technician-Consumer**

**(3 Credits)**

In this course, students learn how to install and support users running the Microsoft Windows operating system. Topics include installing operating systems and service packs, managing access to files and folders, configuring hardware devices and drivers, setting up network protocols, configuring security options and troubleshooting associated problems. Lecture: 2 hours, Lab: 2 hours - Lab Fee: \$20

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**CNVT 2310 - Desktop Technician-Business**

**(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. Lecture: 2 hours, Lab: 2 hours - Lab Fee: \$20