

Computer Support Engineering Technology

Program Assessment Plan

Last Revised 12/5/2007

Catalog Description

In the last decade, computers have become an integral part of everyday life, and used for a variety of purposes at home, in the workplace, and at schools. The continued growth and use of computers has created a high demand for computer hardware and software specialists that provide advice to users, as well as the day-to-day administration, maintenance, and support of computer systems.

This associate in applied science degree is designed to provide the student with learning experiences that will develop skills required to install, diagnose problems and repair microprocessor control devices at the PC desktop, the Local Area Network (LAN) and Wide Area Network (WAN) system levels. In addition, the program is designed to provide students with the fundamental knowledge to sit for external certifications which include but are not limited to the CCNA (Cisco Certified Network Associate) and the CompTIA A+ certification exams.

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Learning Outcome

Through a skills-based assessment, students completing the course CIS 1305 will connected two PCs together using Ethernet technologies.

Benchmark	Assessment Method	Assessment Date
160.1A Given the tools, equipment, and hardware components, 70% of the students will successfully terminate a Cross-Over Ethernet patch cable complying with the T-568A and T-568B UTP industry standards. Enterprise Computer Systems are understood to mean "private" as compared to "Internet" connections.	The instructor will inspect the Cross-Over Ethernet patch cable and verify its configuration and continuity compliance using visual as well as state-of-art test equipment. Pass/Fail.	12/1/2010

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Learning Outcome

Through a skills-based assessment, students completing the course CIS 1305 will subnet an IP address.

Benchmark	Assessment Method	Assessment Date
160.2A Given a Class "B" or "C" IP address, 70% of the students will have successfully subnetted the IP address.	The Instructor will provide the students with related Logical Network Subnet Topology attributes. The instructor will then verify that the students, via paper and pencil submissions correctly determined the minimum number of bits to be borrowed. Pass/Fail	12/1/2010
160.2B Given a Class "B" or "C" IP address, 70% of the students will have successfully subnetted the IP address.	The Instructor will provide the students with related Logical Network Subnet Topology attributes. The instructor will then verify that the students, via paper and pencil submissions correctly identified the subnet mask. Pass/Fail	12/1/2010
160.2C Given a Class "B" or "C" IP address, 70% of the students will have successfully subnetted the IP address.	The Instructor will provide the students with related Logical Network Subnet Topology attributes. The instructor will then verify that the students, via paper and pencil submissions correctly determined the subnet zero address. Pass/Fail	12/1/2010
160.2D Given a Class "B" or "C" IP address, 70% of the students will have successfully subnetted the IP address.	The Instructor will provide the students with related Logical Network Subnet Topology attributes. The instructor will then verify that the students, via paper and pencil submissions correctly determined the range of addresses for the derived subnet. Pass/Fail	12/1/2010
160.2E Given a Class "B" or "C" IP address, 70% of the students will have successfully subnetted the IP address.	The Instructor will provide the students with related Logical Network Subnet Topology attributes. The instructor will then verify that the students, via paper and pencil submissions correctly identified the subnet broadcast address. Pass/Fail	12/1/2010

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Learning Outcome

Through a skills-based assessment, students completing the course CIS 1305 will connect two PCs together to create a small Local Area Network (LAN) using Ethernet Technologies by cabling and connecting them through a hardware device.

Benchmark	Assessment Method	Assessment Date
160.3A Utilizing the Cross-Over Ethernet patch cable in Learning Outcome 1 and the particulars of the Logical Network Topology subnet created in Learning Outcome 2, 70% of the students will successfully cable and configure two workstations through an Ethernet Switch such that the PCs are able to communicate with each other.	The instructor will verify that each team properly configured each of the two workstations with correct IP addresses, subnet mask and the default gateway. Pass/Fail	12/1/2010
160.3B Utilizing the Cross-Over Ethernet patch cable in Learning Outcome 1 and the particulars of the Logical Network Topology subnet created in Learning Outcome 2, 70% of the students will successfully cable and configure two workstations through an Ethernet Switch such that the PCs are able to communicate with each other.	The instructor will verify that students are able to successfully use the technique of "pinging" between the two workstations. Pass/Fail	12/1/2010