

Network+ Certification

(CPMT-1073)

Course Syllabus

Course: CPMT-1073 Computer Networking Technology 60 hours

Course Description:

Network+ is a CompTIA vendor neutral certification that measures the technical knowledge of networking professionals. Earning the Network+ certification means that the candidate possesses the knowledge needed to configure and operate a variety of networking products. This exam covers a wide range of vendor and product neutral networking technologies that can also serve as a prerequisite for vendor-specific IT certifications.

The Network+ training program at Austin Community College is a 60-hour program including lecture, labs, and exam preparation.

Prerequisite: A+ certification or equivalent knowledge.

Rationale:

Basic network maintenance is a core skill for many workforce positions.

Evaluation:

Those who participate in class discussions, complete class labs and miss no more than three class meetings will be awarded 6 continuing education units. Ultimate evaluation of the student will be their successfully passing the CompTIA Network+ examination.

Course Objectives:

At the conclusion of the course, students will have mastery of the following subjects.

1. Media & Topologies

Recognition of and knowledge of the characteristics of various networking media and topologies and their component equipment including NICs, hubs, routers, switches, and gateways.

2. Protocols & Standards

Includes in-depth understanding of various TCP/IP protocols, the basics of IPX/SPX, NetBEUI, and Appletalk, the OSI model layers and their functions, WAN technologies, remote access and security protocols.

3. Network Implementation

Basic capabilities of UNIX/Linux, NetWare, Windows, Macintosh network operating systems, firewalls, proxy servers, DHCP, DNS, WINS, NETBIOS, VLANs, and SANs.

4. Network Support

TCP/IP utilities, network wiring basics, and troubleshooting methodology.

Book required: CompTIA Network+ Certification, 2009 Edition + CertBlaster, Student Manual, ISBN-10: 1-4260-0608-X, ISBN-13: 978-1-4260-0608-1

Proposed Schedule:

Class introduction, administration

Chapter 1 – Introduction to Network+

Chapter 2 – Network Fundamentals

Chapter 3 – Building a Network with OSI

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Chapter 4 – Hardware Concepts

Chapter 5 – Ethernet Basics

Chapter 6 – Modern Ethernet

Chapter 7 – Non-Ethernet Networks

Chapter 8 – Network Interface Cards

Chapter 9 – Structured Cabling

Lab – Network cards & Cables

Chapter 10 – Dealing with the Physical

Chapter 11 – Protocols

Chapter 12 – TCP/IP

Review – (Quiz)

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Chapter 13 – Network Operation Systems

Chapter 14 – Resources

Chapter 15 – Going Large with TCP/IP

Chapter 16 – TCP/IP and the Internet

Chapter 17 – Remote Connectivity

Chapter 18 – Protecting Your Network

Chapter 19 – Interconnecting Network Operating Systems

Chapter 20 – The Perfect Server

Chapter 21 – Zen and the Art of Network Support

Practice Tests

Lab – Setup Peer-to-Peer network in class

Review – (Quiz)