

Server + Certification

(ITNW 1054)

Syllabus

Course: (ITNW 1054)- PC Technical Certification 60 hours

Course Description:

Students will learn about server hardware technologies, including installation, configuring, and upgrading server hardware; preventive maintenance, troubleshooting, and disaster-recovery techniques for servers. Server+ Certification course also provides you with the skills and knowledge to help you prepare for the CompTIA Server+certification exam.

Server+ is a certification that validates an individual's knowledge of advanced hardware issues. It helps individuals certify their advanced technical knowledge of planning, installing, configuring, and maintaining servers.

Prerequisite:

Students enrolling in this course should have a strong background of personal computer concepts, an intermediate understanding of networking concepts, and considerable experience with installing and upgrading hardware and software components. CompTIA recommends 18 to 24 months in the server technologies industry.

Course Objectives:

At the conclusion of this course, Students will have mastery of the following subjects:

1. Installation

Conduct pre-installation planning activities.

Plan the installation; Verify all aspects of the installation plan.

Install all hardware using ESD best practices.

2. Configuration

Check/upgrade BIOS/firmware levels: Configure RAID:

Install NOS. Configure network and verify network connectivity.

Configure external peripherals: Install NOS updates to design specifications.

Update manufacturer-specific drivers.

Install service tools. Perform Server baseline. Document the configuration.

3. Upgrading

Perform full backup.

Add processors; Add hard drives; Increase memory.

Upgrade BIOS/firmware.

Upgrade adapters (e.g., NICs, SCSI cards, RAID, etc.).

Upgrade peripheral devices, internal and external.

Upgrade system monitoring agents.

Upgrade service tools

Upgrade UPS

4. Proactive maintenance

Perform regular backup; Create baseline and compare performance.

Set SNMP thresholds; Perform physical housekeeping.

Perform hardware verification; Establish remote notification

5. Environment.

Recognize and report on physical security issues.

Recognize and report on server room environmental issues

6. Troubleshooting and Problem Determination

Perform problem determination.

Use diagnostic hardware and software tools and utilities.

Identify bottlenecks; Identify and correct misconfigurations and/or upgrades.

Determine if problem is hardware, software, or virus-related.

7. Disaster Recovery

Plan for disaster recovery.

Restoring.

Rationale:

A vendor and product neutral course which will earn the student an established industry credential that validates their network and server expertise. Will serve as a jumping off point for higher level certifications.

Evaluation:

Those who participate in class discussions, complete class labs and miss no more than three class meetings will be awarded 6.0 continuing education units. Ultimate evaluation of the student will be their successfully passing the CompTIA Server + examination.

Books Required: (Only available at Rio Grande book store)

Server + Study Guide

Osborne/McGraw-Hill

ISBN 0-07-219034-5

Proposed Schedule

Class introduction, administration, Introduction to CompTIA

Lesson 1- Server Types and Roles (Chapter 1)

Lesson 2- Installation (Chapter 2)

Lesson 3- Motherboards and Processors (Chapter 3)

Lesson 4- Storage Devices (Chapter 4)

Fault Tolerance and Redundancy (Chapter 5)

Lesson 5- Networking (Chapter 6)

Network Operating Systems (Chapter 7)

Lesson 6- Network Operating Systems (Chapter 7) (Cont.)

TCP/IP (Chapter 8)

Lesson 7- Upgrading and Maintenance (Chapter 9)

Lesson 8- Hardware Updates (Chapter 10)

Lesson 9- Software Updates (Chapter 11)

Lesson 10- Performance and Hardware Monitoring (Chapter 12)

Lesson 11- Server Room Security (Chapter 13)

Lesson 12- Backups (Chapter 14)
Disaster Recovery (Chapter 15)

Lesson 13- Problem Determination (Chapter 16)

Lesson 14- Problem Determination (Labs)

Lesson 15- Review and Sample test.