

Information Technology and Administrative Management Department
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ITAM

Information Technology &
Administrative Management

Central Washington University

**IT 463 (was IT453)
Computer Network Management
Course Syllabus - 4 credits**



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Course Description: This course teaches students, through lectures, discussions, demonstrations, textbook exercises, and classroom labs, the skills and knowledge necessary to install, configure, administer, and support the primary services for network servers, with instruction and labs focusing specifically on the Microsoft Windows Server 2003 operating system.

Course Objective: The course begins by examining basic system administration procedures. Subsequent chapters are devoted to the creation and management of user, group, and computer accounts, to the sharing of system resources, and to the installation and maintenance of system hardware.

Specific Learner Outcomes:

Course Objectives

This course will address the following goals and concepts:

- Identifying the key differences among the Windows Server 2003 editions and the logical components and concepts of Active Directory
- Installing Windows Server 2003 and creating a domain controller
- Creating and using MMC consoles
- Implementing and configuring Remote Desktop for Administration and Remote Assistance
- The appropriate use of the Event Viewer to monitor system logs
- The proper configuration of the Task Manager to display performance data and to start and end applications and processes
- Using the Performance console to display real-time performance data and create counter logs and alerts
- Determination of the appropriate Performance console counters and values necessary to properly analyze and troubleshoot a server
- The capabilities of network backup software products, including the Windows Server 2003 Backup program
- The difference between full, incremental, and differential backup jobs
- Backing up and restoring an Active Directory database
- Volume shadow copies
- The use and deployment of service packs and hotfixes using Windows Update, Automatic Updates, group policies, and Microsoft Software Update Services

- Integration of service packs and hotfixes into a Windows Server 2003 operating system installation
- Use of the Microsoft Baseline Security Analyzer
- Per Server and Per Device or Per User licensing modes and configuration of licenses using the Choose Licensing Mode tool in Control Panel and the Licensing administrative tool
- The differences between local user accounts and domain user accounts
- Planning, creating, and managing local and domain user accounts
- The differences between local, roaming, and mandatory profiles
- The two group types and three group scopes and their proper use
- Creation, management and deletion of groups
- Creating, managing, and troubleshooting computer objects
- Creating and managing file system shares and working with share permissions
- NTFS file system permissions to control access to files
- Management of file sharing using Microsoft Internet Information Services (IIS)
- The model and terminology used for Windows printing
- Installation and management of a logical printer on a print server
- Why and how to connect a printer client to a logical printer on a print server
- Issues with troubleshooting printer failures
- Installation and management of device drivers
- Steps to take to troubleshoot device driver problems
- Disk-storage concepts and terminology
- Issues regarding the addition of storage to a Windows Server 2003 computer
- Management of disks using Check Disk, Disk Defragmenter, and Disk Quotas

Learner Outcomes

Upon successful completion of this course, the student will be able to:

- Identify the key differences among the Windows Server 2003 editions and the logical components and concepts of Active Directory
- Install Windows Server 2003 and create a domain controller
- Create and use MMC consoles
- Configure a server to enable Remote Desktop for Administration and Remote Assistance
- Use the Event Viewer to monitor system logs
- Configure Task Manager to display performance data and to start and end applications and processes
- Use the Performance console to display real-time performance data and create counter logs and alerts
- Recognize and determine the appropriate Performance console counters and values necessary to properly analyze and troubleshoot a server
- Understand the capabilities of network backup software products, including the Windows Server 2003 Backup program
- Understand the difference between full, incremental, and differential backup jobs
- Back up and restore an Active Directory database
- Use volume shadow copies
- Deploy service packs and hotfixes using Windows Update, Automatic Updates, group policies, and Microsoft Software Update Services
- Integrate service packs and hotfixes into a Windows Server 2003 operating system installation
- Use Microsoft Baseline Security Analyzer
- Understand Per Server and Per Device or Per User licensing modes and configure licenses using the Choose Licensing Mode tool in Control Panel and the Licensing administrative tool
- Understand the differences between local user accounts and domain user accounts

- Plan, create, and manage local and domain user accounts
- Understand the differences between local, roaming, and mandatory profiles
- Identify the two group types and three group scopes and their proper use
- Create, manage, and delete groups
- Create, manage, and troubleshoot computer objects
- Create and manage file system shares and work with share permissions
- Use NTFS file system permissions to control access to files
- Manage file sharing using Microsoft Internet Information Services (IIS)
- Understand the model and terminology used for Windows printing
- Install and manage a logical printer on a print server
- Connect a printer client to a logical printer on a print server
- Troubleshoot printer failures and recognizing contextual issues
- Install and manage device drivers
- Troubleshoot device driver problems
- Understand disk-storage concepts and terminology
- Add storage to a Windows Server 2003 computer and recognize appropriate contextual issues
- Manage disks using Check Disk, Disk Defragmenter, and Disk Quotas

Textbook and other required materials: *Microsoft Official Academic Course 70-290: Managing and Maintaining a Microsoft Windows Server 2003 Environment*, Craig Zacker, McGraw Hill Technology Education. (Or most recent addition. Contact the instructor for details)

Instructional Methods and Activities:

This course employs instructor lecture, various assignments, instructor feedback, the use of Blackboard online course application.