NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
ITN 200 - ADMINISTRATION OF NETWORK RESOURCES (3 CR.)

Course Description

Focuses on the management of local area network servers. Teaches proper structuring of security systems. Explains print queues, disk management, and other local area network (LAN) issues. Presents concerns and issues for the purchase and installation of hardware and software upgrades. The course can be taught using any network operating system or a range of operating systems as a delivery tool. Lecture 3 hours per week.

General Course Purpose

This course teaches the principles of LAN management and the skills necessary to maintain and manage a network. It will provide an overview of LAN operations, the importance of servers, backup, security, user service, and acquisition and installation in LAN operations, the role of LAN managers in these functions, and other topics related to server and client management and performance. The course will help prepare the student to function as a LAN manager and/or LAN system administrator. This course focuses on the management of LAN operating systems including user and group management, file systems, print services, and system backup. It teaches the proper structuring of security systems, explains print queues, disk management and other LAN issues, presents the concerns and issues for the purchase and installation of hardware and software.

Course Prerequisites/Corequisites

Prerequisite: ITN 100 or ITN 101

Course Objectives

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

1.0 **Operating System Basics**
    1.1 Role of the Operating System (OS) in computer architecture
    1.2 Relationship of the OS to BIOS and device drivers
    1.3 Interaction between OS and Operating Environment (OE)
    1.4 User Interfaces - commands vs. GUIs (SA3)
2.0 **Hardware Requirements**
    2.1 Essential elements of communications
    2.2 Overview of LAN hardware and software
    2.3 Server memory and processor concepts and requirements
3.0 **File System Management**
    3.1 Types of file systems
    3.2 Planning file systems
    3.3 Accessing volumes, directories, and applications
    3.4 Understanding and creating drive mappings
4.0 **User/Group Management (SA2)**
    4.1 Creating accounts
    4.2 Modifying accounts
    4.3 Types of account groups
    4.4 Managing groups
5.0 **Security Management**
    5.1 Understanding printer objects
    5.2 File and directory permissions/attributes
    5.3 Share permissions

5.4 Login and password security
5.5 Operating system security features
5.6 Updates and patches (SA7)
5.7 Auditing (SA9)
6.0 **Network Printing**
6.1 Understanding printer objects
6.2 Printer communications
6.3 Connecting a printer to the network
6.4 Sending print jobs to network printers
6.5 Redirecting output to the network printers
6.6 Managing printer connections and print jobs
7.0 **Server Management**
7.1 Startup procedures and configuration files (SA6)
7.2 Performance management and optimization (SA9)
7.3 Managing virtual memory
7.4 Network messaging
7.5 Managing system services (SA10)
7.6 Backup and restoring data (SA12)
8.0 **Installation of a Network Operating System**
8.1 Network work group and domain concepts
8.2 Installation process (SA1)
8.3 Virtualization
9.0 **Extra topics** (optional)
9.1 Hands-on Experience
9.2 Virus Protection
9.3 Network domain interaction
9.4 Network application installation

Major Topics to be Included

1. Disk management
2. Hardware management
3. Server performance
4. Profiles
5. Group accounts
6. User accounts
7. Computer accounts
8. Authentication
9. Shares
10. Permissions
11. File systems
12. Printing
13. Backup and restore
14. Troubleshooting

Required Time Allocation per Topic

Topic	Time in Hours	Percentages
Operating System Basics	6	13%
Hardware Requirements	2	5%

File System Management	7	15%
User/Group Management (SA2)	6	13%
Security Management	3	7%
Network Printing	3	7%
Server Management	6	13%
Installation of a Network Operating System	6	13%
Quizzes and Exams	6	14%
Total	45	100%