

Las Positas College  
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## Course Outline for CNT 57

### IMPLEMENTING WINDOWS ACTIVE DIRECTORY SERVICES

Effective: Fall

#### I. CATALOG DESCRIPTION:

CNT 57 — IMPLEMENTING WINDOWS ACTIVE DIRECTORY SERVICES — 3.00 units

Students will learn to install, configure, and administer Microsoft Windows Active Directory services. This course focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. Students will use Group Policy to configure and manage the user desktop environment, to configure and manage software and implement and manage security settings. Students will install and manage Windows domains and domain controllers through Active Directory.

2.50 Units Lecture 0.50 Units Lab

#### **Strongly Recommended**

CNT 54 - Administering Windows Client  
and

CNT 55 - Installing & Configuring Windows Server MCSA I

#### **Grading Methods:**

Letter or P/NP

#### **Discipline:**

	<b>MIN</b>
<b>Lecture Hours:</b>	45.00
<b>Lab Hours:</b>	27.00
<b>Total Hours:</b>	72.00

#### II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 2

#### III. PREREQUISITE AND/OR ADVISORY SKILLS:

**Before entering this course, it is strongly recommended that the student should be able to:**

- A. CNT54
- B. CNT55

#### IV. MEASURABLE OBJECTIVES:

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

- A. create and manage trees and forests in a Windows environment;
- B. use domain name system to support an installation of Active Directory;
- C. analyze and correct operational problems with a Windows domain controller promotion;
- D. use Group Policy to deploy and manage software in a Windows environment;
- E. use Group Policy to manage user environments, scripts, redirect user folders, and troubleshoot user environment management;
- F. use Group Policy to develop and deploy security policies in a Windows environment;
- G. use the security tools available with Windows;
- H. create and maintain user accounts;
- I. identify and resolve issues with user account policies;
- J. demonstrate an understand of the basic security concepts including system end-user, and operational security;
- K. use groups to manage access to domain resources;
- L. delegate administrative control in Active Directory;
- M. setup and administer published printers and folders in Active Directory;
- N. setup, and manage Active Directory replication;
- O. manage the network using Microsoft Active Directory management tools;
- P. maintain Active Directory, including modifying, backing up, restoring, and move the database.

#### V. CONTENT:

- A. Introduction to Active Directory in Windows
  - 1. Active Directory logical structure
  - 2. Active Directory physical structure
  - 3. Methods of administering a Windows network

- B. Implementing DNS to Support Active Directory
  - 1. Role of DNS in Active Directory
  - 2. Installing and configuring DNS to support Active Directory
- C. Creating a Windows Domain
  - 1. Installing Active Directory
  - 2. Examining the default structure of Active Directory
  - 3. Troubleshooting the installation of Active Directory
- D. Setting Up and Administering Users and Groups
  - 1. Creating multiple user accounts
  - 2. Administering user accounts
  - 3. Using groups in Active Directory
  - 4. Troubleshooting domain user accounts and groups
- E. Publishing Resources in Active Directory
  - 1. Setting up and administering published printers
  - 2. Setting up and administering published shared folders
  - 3. Troubleshooting published resources
- F. Delegating Administrative Control
  - 1. Object security in Active Directory
  - 2. Controlling access to Active Directory objects
  - 3. Delegating administrative control of Active Directory objects
  - 4. Customizing Microsoft Management Console (MMC)
- G. Implementing Group Policies
  - 1. Group Policy structure
  - 2. Working with Group Policy objects
  - 3. Applying Group Policy settings in Active Directory
  - 4. Monitoring and troubleshooting Group Policies
  - 5. Using administrative templates in Group Policy
  - 6. Assigning Scripts in Group Policy
  - 7. Using Group Policy to redirect user folders and to secure the user environment
  - 8. Deploying software
- H. Creating and Managing Trees and Forests
  - 1. Creating trees and forests
  - 2. Trust relationships between trees and forests
  - 3. The Global catalog
  - 4. Strategies for using groups in trees and forests
- I. Managing Active Directory Replication
  - 1. Replication components and processes
  - 2. Using sites to optimize Active Directory replication
  - 3. Monitoring replication traffic
  - 4. Troubleshooting Active Directory replication
- J. Maintaining the Active Directory Database
  - 1. Backing up the Active Directory
  - 2. Restoring the Active Directory
  - 3. Moving the Active Directory database
  - 4. Defragmenting the Active Directory database

#### VI. METHODS OF INSTRUCTION:

- A. **Lecture** -
- B. **Demonstration** -
- C. Internet research
- D. **Lab** - Laboratory assignments
- E. **Discussion** -

#### VII. TYPICAL ASSIGNMENTS:

- A. Design an organization policy for governing Active Directory changes and the components of each type of change.
- B. Setup and administer published printers in Active Directory.

#### VIII. EVALUATION:

- A. **Methods**
- B. **Frequency**

#### IX. TYPICAL TEXTS:

- 1. Shilmover *MCSE Guide to Microsoft Windows 2000 Active Directory*., Course Technology, 2001.
- 2. Microsoft Corporation *MCSE Training Kit: Microsoft® Windows® 2000 Active Directory™ Services*., Microsoft Press, 2000.

#### X. OTHER MATERIALS REQUIRED OF STUDENTS:

- A. Computer Lab Supplies Certificate