

**LAGUARDIA COMMUNITY COLLEGE
CITY UNIVERSITY OF NEW YORK
DEPARTMENT OF MATHEMATICS, ENGINEERING, and COMPUTER SCIENCE**

**MAC253 Advanced NT Systems Administration
3 credits; 4 hours (3 lecture, 1 lab)**

This course is a continuation of the NT (Windows Server 2008) Operating Systems course. It provides the students with the practical skills needed to serve as a Windows Server 2008 Administrator. Topics include profiles and policy editor, trust relationship between multiple domains, directory services, DHCP (Dynamic Host Configuration Protocol), IIS (Internet Information Services), WINS (Windows Internet Naming Service), and network monitoring. Students are encouraged to take the second certification exam offered by MCSE.

Prerequisite: ENG101,MAC233, CSE099, ENA099/ENG099, MAT096

Instructional Objectives:

1. To Introduce the function of a Windows Server System Administrator.
2. To Enable students to install several services in Windows Server 2008.
3. Reinforce basic Windows Server utilities for administration and demonstrate advanced utilities.
4. Provide students with the ability to configure Web Server, DHCP and WINS Server.
5. Introduce students to installation and updates of service packs.
6. Provide students with the skills to become a Windows Server System Administrator.

Performance Objectives:

1. Explain the functions of a Windows Server System Administrator.
2. Install and remove services for Windows Server 2008 O.S.
3. Analyze the most frequently used administrative functions.
4. Identify needed service packs for Windows Server and Windows Clients.
5. Prepare Server 2008 to configure as Web Server, DHCP, and WINS Server.
6. Demonstrate the skills needed for a Windows Server System Administrator.

Grading Standards:

2 Written Quizzes (20% each)	40%
5 Lab Assignments (5% each)	25%
Final Exam	35%
Total	100%

Books:

MCITP Guide to Microsoft Windows Server 2008, Server Administration, by Michael Palmer; Publisher: Course Technology, Cengage Learning, Copyright: 2011, Format: Paper; 712 pp
Published: 2011
ISBN-10: 1-4239-0238-6
ISBN-13: 978-1-4239-0238-6

MCITP Guide to Microsoft Windows Server 2008 Active Directory Configuration, by Greg Tomsho;

Publisher: Course Technology, Cengage Learning, Copyright: 2010, Format: Paper; 630 pp
Published: 2010
ISBN-10: 1-423-90235-1
ISBN-13: 978-1-423-90235-5

Course Syllabus:

Week 1

Introducing Windows Server 2008
The Role of a Server Operating System
Windows Server 2008 Editions
Windows Server 2008 Core Technologies
Windows Server 2008 roles
New Features in Windows Server 2008

Week 2

Installing Windows Server 2008
Planning a Windows Server 2008 Installation
Introducing Active Directory
The Role of a Directory Service

Week 3

Installing Active Directory
Introducing Group Policies
Active Directory Design and Security Concepts

Week 4

Working with Organizational Units
Working with Forests, Trees, and Domains
Understanding Sites

Week 5

Account Management
Managing User Accounts
Working with User Profiles
Managing Group Accounts
Working with Computer Accounts
Automating Account Management

Week 6

Windows File and Print Services
Windows File Systems
Securing Access to Files with Permissions
Windows File Sharing

Week 7

Windows Storage Management
Windows Printing
Configuring Group Policy
Group Policy Architecture
Group Policy Settings
Using Security Templates
Group Policy Management and Monitoring

Week 8

Introduction to Windows Networking

Understanding the Windows Networking Paradigm
TCP/IP Operation and Configuration
Internet Protocol Version 6

Week 9

Configuring DNS for Active Directory
Introduction to Domain Name System
Using DNS in Windows Server 2008
Configuring DNS Zones
Advanced DNS Server Settings
Monitoring and Troubleshooting DNS

Week 10

Configuring and Maintaining the Active Directory Infrastructure
Examining Active Directory Functional Level
Adding and Removing Domains
Configuring Active Directory Trusts
Understanding and Configuring Sites
Active Directory Certificate Services

Week 11

Additional Active Directory Server Roles
Active Directory LDS Overview
AD Federation Services
Read Only Domain Controllers

Week 12

Server Management and Monitoring
Active Directory Maintenance
Active Directory Monitoring

Week 13

Certification Exam Preparation and Review
Final Exam