

## Northeast Wisconsin Technical College

10-150-187 060136 IT:Network: Microsoft Server 2

# Course Design

### Course Information

|  |  |  |
| --- | --- | --- |
|  | Alternate Title | IT:Network: Microsoft Server 2 |
|  | Description | 10-150-187 IT:NETWORK:MICROSOFT SERVER 2 ...acquire necessary skills for administering Windows Server environment including Active Directory management, Group Policy, backup and recovery; PowerShell remoting, and infrastructure management; and security concepts while preparing for MCSA Exam 70-411. (Prerequisite: 10-150-165, IT:Network: Microsoft Server 1) |
|  | Instructional Level | 10 |
|  | Total Credits | 3.00 |
|  | Total Hours | 72.00 |

### Course Competencies

|  |  |
| --- | --- |
| 1. | Configure servers |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | NetLabs in-class activity |
|  | 1.3. | Mid-term lab assessment |
|  | 1.4. | Mid-term written assessment |
|  | 1.5. | Install Servers PAT |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 1.1. | You install base server operating system |
|  | 1.2. | You add the Hyper-V role |
|  | 1.3. | You create virtual machines within Hyper-V |
|  | 1.4. | You promote virtual machine to a domain controller |
|  | 1.5. | You create a new domain in a new forest |
|  | 1.6. | You add the DNS role |
|  | 1.7. | You add reverse lookup zone in DNS |
|  | 1.8. | You set preferred DNS on other virtual machines to point to the Active Directory DNS Server |
|  | 1.9. | You join other virtual machines to domain using PowerShell |
|  | 1.10. | You achieve a passing score on the written quiz |
|  | 1.11. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.12. | You achieve a passing score on the mid-term lab assessment |
|  | 1.13. | You achieve a passing score on the written mid-term |
|  | Learning Objectives |
|  | 1.a. | Identify the requirements for a server deployment |
|  | 1.b. | Identify the process to add the Hyper-V role |
|  | 1.c. | Identify the process to add virtual machines to a hypervisor |
|  | 1.d. | Identify the process to set the preferred DNS |
|  | 1.e. | Identify the commands required to add a workstation to a domain using PowerShell |
| 2. | Configure monitoring for servers |
|  | Assessment Strategies |
|  | 2.1. | Written quiz |
|  | 2.2. | MOAC lab manual and worksheet: Monitor Servers PAT |
|  | 2.3. | NetLabs in-class activity |
|  | 2.4. | Mid-term lab assessment |
|  | 2.5. | Mid-term written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 2.1. | You create a custom Microsoft Management Console |
|  | 2.2. | You add custom snap-in to custom Microsoft Management Console |
|  | 2.3. | You identify server errors within Event Viewer |
|  | 2.4. | You add a PowerShell task to an event error |
|  | 2.5. | You generate a reliability report |
|  | 2.6. | You track performance using Task Manager |
|  | 2.7. | You track performance using Resource Monitor |
|  | 2.8. | You add common counters to Performance Monitor |
|  | 2.9. | You achieve a passing score on the written quiz |
|  | 2.10. | You achieve a passing score on the MOAC lab worksheet |
|  | 2.11. | You achieve a passing score on the mid-term lab assessment |
|  | 2.12. | You achieve a passing score on the written mid-term |
|  | Learning Objectives |
|  | 2.a. | Identify the primary event logs found in Event Viewer |
|  | 2.b. | Explain what types of events are written to the primary event logs |
|  | 2.c. | Explain the purpose of an audit event in the Security Event log |
|  | 2.d. | Identify the process to view the reliability report |
|  | 2.e. | Explain the four components that are monitored in Resource Monitor |
|  | 2.f. | Identify the PowerShell command that can retrieve current process and their resource utilization |
|  | 2.g. | Identify the process to add a PowerShell script to an event triggered task |
| 3. | Configure local storage |
|  | Assessment Strategies |
|  | 3.1. | Written quiz |
|  | 3.2. | MOAC lab manual and worksheets: Configure DFS; Configure FSRM; Configure File Services and Disk Encryption PATs |
|  | 3.3. | NetLabs in-class activity |
|  | 3.4. | Mid-term lab assessment |
|  | 3.5. | Mid-term written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 3.1. | You add the Distributed File System role |
|  | 3.2. | You configure DFS Namespace |
|  | 3.3. | You configure DFS replication |
|  | 3.4. | You add the File Server Resource Manager role service |
|  | 3.5. | You create disk usage quotas |
|  | 3.6. | You manage files using File Screening |
|  | 3.7. | You create a file screen exception |
|  | 3.8. | You create storage reports based on usage |
|  | 3.9. | You configure EFS and Bitlocker |
|  | 3.10. | You achieve a passing score on the written quiz |
|  | 3.11. | You achieve a passing score on the MOAC lab worksheet |
|  | 3.12. | You achieve a passing score on the mid-term lab assessment |
|  | 3.13. | You achieve a passing score on the written mid-term |
|  | Learning Objectives |
|  | 3.a. | Identify the process to add the DFS Role |
|  | 3.b. | Examine the benefit of DFS as opposed to tradition folder sharing |
|  | 3.c. | Explain the process of DFS replication |
|  | 3.d. | Identify the process to add the FSRM role |
|  | 3.e. | Compare a soft quota and hard quota |
|  | 3.f. | Identify the process to enable File Screening |
|  | 3.g. | Identify the requirements for BitLocker |
| 4. | Configure DNS server resources and records |
|  | Assessment Strategies |
|  | 4.1. | Written quiz |
|  | 4.2. | MOAC lab manual and worksheet:Configure DNS Records and Zones PAT |
|  | 4.3. | NetLabs in-class activity |
|  | 4.4. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 4.1. | You install the DNS role |
|  | 4.2. | You create a primary DNS forward lookup zone |
|  | 4.3. | You configure Active Directory integrated DNS zones |
|  | 4.4. | You create DNS resource records |
|  | 4.5. | You configure secure dynamic updates |
|  | 4.6. | You use PowerShell and command line tools for DNS |
|  | 4.7. | You achieve a passing score on the written quiz |
|  | 4.8. | You achieve a passing score on the MOAC lab worksheet |
|  | 4.9. | You achieve a passing score on the Final project |
|  | 4.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 4.a. | Identify what the DNS role is responsible for on an Active Directory network |
|  | 4.b. | Identify the Service Resource records created after a promotion |
|  | 4.c. | Explain the benefit of Active Directory Integrated DNS |
|  | 4.d. | Identify the DNS requirements for Active Directory |
|  | 4.e. | Identify the process to enable secure dynamic updates |
| 5. | Configure Domain Controllers |
|  | Assessment Strategies |
|  | 5.1. | Written quiz |
|  | 5.2. | MOAC lab manual and worksheet:Configure Domain Controllers PAT |
|  | 5.3. | NetLabs in-class activity |
|  | 5.4. | Final Project |
|  | 5.5. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 5.1. | You add the Active Directory Domain Services role |
|  | 5.2. | You add the DNS role |
|  | 5.3. | You promote the server to a domain controller |
|  | 5.4. | You create a new AD forest |
|  | 5.5. | You create a new AD Tree |
|  | 5.6. | You create a new AD domain |
|  | 5.7. | You ensure DNS records are present in the forward lookup zones |
|  | 5.8. | You add a reverse lookup zone in DNS |
|  | 5.9. | You achieve a passing score on the written quiz |
|  | 5.10. | You achieve a passing score on the MOAC lab worksheet |
|  | 5.11. | You achieve a passing score on the Final project |
|  | 5.12. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 5.a. | Identify two methods to add the AD DS role |
|  | 5.b. | Identify a requirement for Active Directory |
|  | 5.c. | Identify the process to promote the server to a domain controller |
|  | 5.d. | Identify the difference between creating a new domain and adding to an existing domain |
|  | 5.e. | Identify the DNS records that result from a successful promotion |
|  | 5.f. | Identify the four troubleshooting commands to correct any promotion DNS issues |
|  | 5.g. | Identify the purpose of adding a reverse lookup zone |
| 6. | Manage and maintain Active Directory |
|  | Assessment Strategies |
|  | 6.1. | Written quiz |
|  | 6.2. | MOAC lab manual and worksheet:Maintain Active Directory and configure Account Policies PAT |
|  | 6.3. | NetLabs in-class activity |
|  | 6.4. | Final Project |
|  | 6.5. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 6.1. | You automate user account management |
|  | 6.2. | You create a backup of the Active Directory database |
|  | 6.3. | You restore Active Directory from Backup |
|  | 6.4. | You configure Active Directory snapshots |
|  | 6.5. | You clean up metadata within Active Directory |
|  | 6.6. | You optimize the Active Directory Database |
|  | 6.7. | You achieve a passing score on the written quiz |
|  | 6.8. | You achieve a passing score on the MOAC lab worksheet |
|  | 6.9. | You achieve a passing score on the Final project |
|  | 6.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 6.a. | Identify the process to automate user account management |
|  | 6.b. | Identify the boot mode used to restore an Active Directory database |
|  | 6.c. | Identify what is included in a system state backup |
|  | 6.d. | Identify the process to enable Active Directory snapshots |
|  | 6.e. | Identify the purpose behind cleaning up Active Directory metadata |
|  | 6.f. | Explain the steps required to optimize the Active Directory database |
| 7. | Configure Group Policies |
|  | Assessment Strategies |
|  | 7.1. | Written quiz |
|  | 7.2. | MOAC lab manual and worksheet: Configure Group Policy Processing and Settings PAT |
|  | 7.3. | NetLabs in-class activity |
|  | 7.4. | Final Project |
|  | 7.5. | Final written assessment |
|  | Criteria |
|  | 7.1. | You configure the processing order of group policies |
|  | 7.2. | You configure security filtering within group policies |
|  | 7.3. | You configure inheritance blocking |
|  | 7.4. | You configure enforced policies |
|  | 7.5. | You configure loopback processing |
|  | 7.6. | You configure client side extension behaviors |
|  | 7.7. | You force policy updates |
|  | 7.8. | You achieve a passing score on the written quiz |
|  | 7.9. | You achieve a passing score on the MOAC lab worksheet |
|  | 7.10. | You achieve a passing score on the Final project |
|  | 7.11. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 7.a. | Explain the order in which group policies are processed |
|  | 7.b. | Explain what security filtering is as it relates to GPO processing |
|  | 7.c. | Identify the process to block policies from processing |
|  | 7.d. | Identify the method to apply updates immediately |
|  | 7.e. | Identify the purpose behind enforced policies |
| 8. | Manage Group Policy Objects |
|  | Assessment Strategies |
|  | 8.1. | Written quiz |
|  | 8.2. | MOAC lab manual and worksheet: Manage Group Policy Objects and Preferences PAT |
|  | 8.3. | Final Project |
|  | 8.4. | Final written assessment |
|  | 8.5. | Netlabs in-class activity |
|  | Criteria |
|  | 8.1. | You configure software installation policies |
|  | 8.2. | You configure folder redirection |
|  | 8.3. | You configure scripts within policies |
|  | 8.4. | You apply administrative templates to policies |
|  | 8.5. | You backup and restore policies |
|  | 8.6. | You reset the default GPOs |
|  | 8.7. | You delegate Group Policy management |
|  | 8.8. | You achieve a passing score on the written quiz |
|  | 8.9. | You achieve a passing score on the MOAC lab worksheet |
|  | 8.10. | You achieve a passing score on the Final project |
|  | 8.11. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 8.a. | Identify the file requirements for software installation policies |
|  | 8.b. | Identify the permission requirements for folder redirection |
|  | 8.c. | Explain why UNC is required for script execution |
|  | 8.d. | Explain what administrative templates are |
|  | 8.e. | Identify what is not backed up when GPOs are backed up within the GPMC |
|  | 8.f. | Identify why and how you would reset default GPOs |
| 9. | Configure Group Policy Preferences |
|  | Assessment Strategies |
|  | 9.1. | Written quiz |
|  | 9.2. | MOAC lab manual and worksheet: Manage Group Policy Objects and Preferences PAT |
|  | 9.3. | Final Project |
|  | 9.4. | Final written assessment |
|  | 9.5. | Netlabs in-class activity |
|  | Criteria |
|  | 9.1. | You configure preference settings |
|  | 9.2. | You configure Windows settings |
|  | 9.3. | You create a drive mapping |
|  | 9.4. | You perform file and folder deployment |
|  | 9.5. | You perform shortcut deployment |
|  | 9.6. | You configure control panel settings |
|  | 9.7. | You configure item-level targeting |
|  | 9.8. | You achieve a passing score on the written quiz |
|  | 9.9. | You achieve a passing score on the MOAC lab worksheet |
|  | 9.10. | You achieve a passing score on the Final project |
|  | 9.11. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 9.a. | Compare Group Policy Preferences and Group Policies |
|  | 9.b. | Identify the requirements to create a drive mapping |
|  | 9.c. | Explain item level targeting |
|  | 9.d. | Explain the options for folder and file deployment |
|  | 9.e. | Explain the preference settings as it relates to update, create and remove |
|  | 9.f. | Identify the process to create a shortcut deployment |
| 10. | Automate administrative tasks using PowerShell |
|  | Assessment Strategies |
|  | 10.1. | Written quiz |
|  | 10.2. | Netlabs in-class activity |
|  | 10.3. | Final Project |
|  | 10.4. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 10.1. | You add roles and features using PowerShell |
|  | 10.2. | You create a script for a domain controller deployment |
|  | 10.3. | You import Active Directory Objects using PowerShell |
|  | 10.4. | You run PowerShell scripts using task scheduler |
|  | 10.5. | You automate network documentation |
|  | 10.6. | You perform remote tasks using PowerShell |
|  | 10.7. | You create data structure |
|  | 10.8. | You achieve a passing score on the written quiz |
|  | 10.9. | You achieve a passing score on the Final project |
|  | 10.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 10.a. | Identify the commands to add, remove and list Windows features and roles |
|  | 10.b. | Explain the steps required to promote a server to a domain controller |
|  | 10.c. | Explain the methods to import and export domain objects |
|  | 10.d. | Identify the proper command structure within task scheduler to initiate a PowerShell Script |
|  | 10.e. | Identify the CIM/WMI classes and objects needed to create thorough remote documentation |
|  | 10.f. | Identify the command structure to create and secure data structures |
| 11. | Manage and secure servers and desktops |
|  | Assessment Strategies |
|  | 11.1. | Written quiz |
|  | 11.2. | Netlabs in-class activity |
|  | 11.3. | Final Project |
|  | 11.4. | Final written assessment |
|  | Criteria |
|  | 11.1. | You remove the UI from server |
|  | 11.2. | You manage the core server from desktop using Powershell |
|  | 11.3. | You manage updates to servers and desktops |
|  | 11.4. | You reduce the attack surface on desktops |
|  | 11.5. | You configure Bitlocker encryption |
|  | 11.6. | You configure Applocker policies on desktops |
|  | 11.7. | You achieve a passing score on the written quiz |
|  | 11.8. | You achieve a passing score on the MOAC lab worksheet |
|  | 11.9. | You achieve a passing score on the Final project |
|  | 11.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 11.a. | Identify process to remove the UI from the server |
|  | 11.b. | Identify the procedure to remotely administer the server using PowerShell |
|  | 11.c. | Examine the proper methods in which to deploy updates |
|  | 11.d. | Identify the services and applications that can be disabled on the desktop |
|  | 11.e. | Identify the benefits of Bitlocker encryption over EFS |
|  | 11.f. | Identify the service requirements to enable Applocker on the desktop |

### Grading Information

Grading determined by points.  There is no weighting of work.

|  |  |  |
| --- | --- | --- |
| **Source** | **Percentage** | **Total Points** |
| Quizzes (2) | 3% | 20 |
| Chapter worksheets (11) | 34% | 203 |
| In class activities (3) | 20% | 145 |
| Midterm written (online) | 11% | 80 |
| Midterm lab assessment | 8% | 60 |
| Final written (online) | 14% | 100 |
| Final lab assessment | 14% | 100 |
|   | Total | 708 |

Grades based on percentage of total points earned:

|  |  |
| --- | --- |
| **% Points Attained** | **Grade** |
| 90-100 | A |
| 80-89 | B |
| 70-79 | C |
| 60-69 | D |
| 00-59 | F |

**Metatags**

Windows, server, PowerShell, active directory, NTFS, DFS, BitLocker, group policy, account administration, web services, automation, scripting, redundancy, fault tolerance, networking, dns, dhcp, ipv6, security

### Course Learning Plans and Performance Assessment Tasks

|  |  |  |  |
| --- | --- | --- | --- |
| Type | Title | Source | Status |
| LP | Install Servers | Course | Active |
| PAT | Install Servers | Course | Active |
| LP | Monitor servers | Course | Active |
| PAT | Monitor Servers | Course | Active |
| LP | Configure distributed file system | Course | Active |
| PAT | Configure DFS | Course | Active |
| LP | Configure FSRM | Course | Active |
| PAT | Configure FSRM | Course | Active |
| LP | Configure File Services and Disk Encryption | Course | Active |
| PAT | Configure File Services and Disk Encryption | Course | Active |
| LP | Configure Advanced Audit Policies | Course | Active |
| PAT | Configure Advanced Audit Policies | Course | Active |
| LP | Configure DNS Zones and Records | Course | Active |
| PAT | Configure DNS Records and Zones | Course | Active |
| LP | Configure Domain Controllers | Course | Active |
| PAT | Configure Domain Controllers | Course | Active |
| LP | Maintain Active Directory and configure Account Policies | Course | Active |
| PAT | Maintain Active Directory and configure Account Policies | Course | Active |
| LP | Configure Group Policy Processing and Settings | Course | Active |
| PAT | Configure Group Policy Processing and Settings | Course | Active |
| LP | Manage Group Policy Objects and Preferences | Course | Active |
| PAT | Manage Group Policy Objects and Preferences | Course | Active |

Install Servers

Overview/Purpose

Installing and configuring servers is a critical component a network infrastructure. The learner will install and configure their server environment which would include both local and physical instances. The learner will then configure a deployed server as a domain controller.

Target Competencies

|  |  |
| --- | --- |
| 1. | Configure servers |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | NetLabs in-class activity |
|  | 1.3. | Mid-term lab assessment |
|  | 1.4. | Mid-term written assessment |
|  | 1.5. | Install Servers PAT |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 1.1. | You install base server operating system |
|  | 1.2. | You add the Hyper-V role |
|  | 1.3. | You create virtual machines within Hyper-V |
|  | 1.4. | You promote virtual machine to a domain controller |
|  | 1.5. | You create a new domain in a new forest |
|  | 1.6. | You add the DNS role |
|  | 1.7. | You add reverse lookup zone in DNS |
|  | 1.8. | You set preferred DNS on other virtual machines to point to the Active Directory DNS Server |
|  | 1.9. | You join other virtual machines to domain using PowerShell |
|  | 1.10. | You achieve a passing score on the written quiz |
|  | 1.11. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.12. | You achieve a passing score on the mid-term lab assessment |
|  | 1.13. | You achieve a passing score on the written mid-term |
|  | Learning Objectives |
|  | 1.a. | Identify the requirements for a server deployment |
|  | 1.b. | Identify the process to add the Hyper-V role |
|  | 1.c. | Identify the process to add virtual machines to a hypervisor |
|  | 1.d. | Identify the process to set the preferred DNS |
|  | 1.e. | Identify the commands required to add a workstation to a domain using PowerShell |
| 2. | Automate administrative tasks using PowerShell |
|  | Assessment Strategies |
|  | 2.1. | Written quiz |
|  | 2.2. | Netlabs in-class activity |
|  | 2.3. | Final Project |
|  | 2.4. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 2.1. | You add roles and features using PowerShell |
|  | 2.2. | You create a script for a domain controller deployment |
|  | 2.3. | You import Active Directory Objects using PowerShell |
|  | 2.4. | You run PowerShell scripts using task scheduler |
|  | 2.5. | You automate network documentation |
|  | 2.6. | You perform remote tasks using PowerShell |
|  | 2.7. | You create data structure |
|  | 2.8. | You achieve a passing score on the written quiz |
|  | 2.9. | You achieve a passing score on the Final project |
|  | 2.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 2.a. | Identify the commands to add, remove and list Windows features and roles |
|  | 2.b. | Explain the steps required to promote a server to a domain controller |
|  | 2.c. | Explain the methods to import and export domain objects |
|  | 2.d. | Identify the proper command structure within task scheduler to initiate a PowerShell Script |
|  | 2.e. | Identify the CIM/WMI classes and objects needed to create thorough remote documentation |
|  | 2.f. | Identify the command structure to create and secure data structures |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Configure In-class environment and NetLab environment |
|  | Learning Materials |
|  | Installing Servers | [LP1.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=a8cf5a45-c7bd-467b-8727-6b58d3ae77f7) |
| 2. | Listen to lecture (in person)-Course Introduction |
| 3. | Review Syllabus (in person) |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the Installing and configure servers PATs |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for mid-term lab assessment (See Embargoed documents) |
| 5. | Prepare for mid-term written assessment (Proprietary Content) |

Install Servers PAT

Directions

Complete in class lab activity

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Configure servers |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | Configure servers | Met Not Met |
| 2. | You install base server operating system | Met Not Met |
| 3. | You add the Hyper-V role | Met Not Met |
| 4. | You create virtual machines within Hyper-V | Met Not Met |
| 5. | You promote virtual machine to a domain controller | Met Not Met |
| 6. | You create a new domain in a new forest | Met Not Met |
| 7. | You add the DNS role | Met Not Met |
| 8. | You add reverse lookup zone in DNS | Met Not Met |
| 9. | You set preferred DNS on other virtual machines to point to the Active Directory DNS Server | Met Not Met |
| 10. | You join other virtual machines to domain using PowerShell | Met Not Met |
| 11. | You achieve a passing score on the written quiz | Met Not Met |
| 12. | You achieve a passing score on the mid-term lab assessment | Met Not Met |
| 13. | You achieve a passing score on the written mid-term | Met Not Met |

Monitor servers

Overview/Purpose

A reliable and stable network depends on monitoring the infrastructure. The learner will use native monitoring tools and create notifications when thresholds are met.

Target Competencies

|  |  |
| --- | --- |
| 1. | Configure monitoring for servers |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | MOAC lab manual and worksheet: Monitor Servers PAT |
|  | 1.3. | NetLabs in-class activity |
|  | 1.4. | Mid-term lab assessment |
|  | 1.5. | Mid-term written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 1.1. | You create a custom Microsoft Management Console |
|  | 1.2. | You add custom snap-in to custom Microsoft Management Console |
|  | 1.3. | You identify server errors within Event Viewer |
|  | 1.4. | You add a PowerShell task to an event error |
|  | 1.5. | You generate a reliability report |
|  | 1.6. | You track performance using Task Manager |
|  | 1.7. | You track performance using Resource Monitor |
|  | 1.8. | You add common counters to Performance Monitor |
|  | 1.9. | You achieve a passing score on the written quiz |
|  | 1.10. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.11. | You achieve a passing score on the mid-term lab assessment |
|  | 1.12. | You achieve a passing score on the written mid-term |
|  | Learning Objectives |
|  | 1.a. | Identify the primary event logs found in Event Viewer |
|  | 1.b. | Explain what types of events are written to the primary event logs |
|  | 1.c. | Explain the purpose of an audit event in the Security Event log |
|  | 1.d. | Identify the process to view the reliability report |
|  | 1.e. | Explain the four components that are monitored in Resource Monitor |
|  | 1.f. | Identify the PowerShell command that can retrieve current process and their resource utilization |
|  | 1.g. | Identify the process to add a PowerShell script to an event triggered task |
| 2. | Automate administrative tasks using PowerShell |
|  | Assessment Strategies |
|  | 2.1. | Written quiz |
|  | 2.2. | Netlabs in-class activity |
|  | 2.3. | Final Project |
|  | 2.4. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 2.1. | You add roles and features using PowerShell |
|  | 2.2. | You create a script for a domain controller deployment |
|  | 2.3. | You import Active Directory Objects using PowerShell |
|  | 2.4. | You run PowerShell scripts using task scheduler |
|  | 2.5. | You automate network documentation |
|  | 2.6. | You perform remote tasks using PowerShell |
|  | 2.7. | You create data structure |
|  | 2.8. | You achieve a passing score on the written quiz |
|  | 2.9. | You achieve a passing score on the Final project |
|  | 2.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 2.a. | Identify the commands to add, remove and list Windows features and roles |
|  | 2.b. | Explain the steps required to promote a server to a domain controller |
|  | 2.c. | Explain the methods to import and export domain objects |
|  | 2.d. | Identify the proper command structure within task scheduler to initiate a PowerShell Script |
|  | 2.e. | Identify the CIM/WMI classes and objects needed to create thorough remote documentation |
|  | 2.f. | Identify the command structure to create and secure data structures |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Complete in class Activity-Monitoring Servers(learning materials/NetLabs)  |
|  | Learning Materials |
|  | Monitoring | [LP2.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=b5bdd117-490e-41ff-9c99-0f7b08b187a7) |
| 2. | Listen to lecture (in person)-Monitoring Servers |
| 3. | Complete MOAC Lesson 3 lab/worksheets (online)-Monitoring Servers |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the Monitoring Servers PAT |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for mid-term lab assessment (Embargoed documents) |
| 5. | Prepare for mid-term written assessment (Proprietary Content) |

Monitor Servers PAT

Directions

Complete MOAC online lab worksheet lessons3  (online, proprietary)
Complete in class lab activity

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Configure monitoring for servers |
| 2. | Automate administrative tasks using PowerShell |

Rating Scale

|  |  |
| --- | --- |
| Value | Description |
| 33 | Each question is worth one point for a total of 33 questions/screenshots throughout the lesson which address the criteria below. (Does not include lab challenge at the end if worksheet) |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | Configure monitoring for servers | Met Not Met |
| 2. | You create a custom Microsoft Management Console | Met Not Met |
| 3. | You add custom snap-in to custom Microsoft Management Console | Met Not Met |
| 4. | You identify server errors within Event Viewer | Met Not Met |
| 5. | You add a PowerShell task to an event error | Met Not Met |
| 6. | You generate a reliability report | Met Not Met |
| 7. | You track performance using Task Manager | Met Not Met |
| 8. | You track performance using Resource Monitor | Met Not Met |
| 9. | You add common counters to Performance Monitor | Met Not Met |
| 10. | You run PowerShell scripts using task scheduler | Met Not Met |
| 11. | You achieve a passing score on the written quiz | Met Not Met |
| 12. | You achieve a passing score on the MOAC lab worksheet | Met Not Met |
| 13. | You achieve a passing score on the mid-term lab assessment | Met Not Met |
| 14. | You achieve a passing score on the written mid-term | Met Not Met |

Configure distributed file system

Overview/Purpose

Consolidation of the network data resources provides an easier working environment for the end user. The learner will create a consolidation architecture using distributed file system as well as adding a level of replication to their environment.

Target Competencies

|  |  |
| --- | --- |
| 1. | Configure local storage |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | MOAC lab manual and worksheets: Configure DFS; Configure FSRM; Configure File Services and Disk Encryption PATs |
|  | 1.3. | NetLabs in-class activity |
|  | 1.4. | Mid-term lab assessment |
|  | 1.5. | Mid-term written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 1.1. | You add the Distributed File System role |
|  | 1.2. | You configure DFS Namespace |
|  | 1.3. | You configure DFS replication |
|  | 1.4. | You add the File Server Resource Manager role service |
|  | 1.5. | You create disk usage quotas |
|  | 1.6. | You manage files using File Screening |
|  | 1.7. | You create a file screen exception |
|  | 1.8. | You create storage reports based on usage |
|  | 1.9. | You configure EFS and Bitlocker |
|  | 1.10. | You achieve a passing score on the written quiz |
|  | 1.11. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.12. | You achieve a passing score on the mid-term lab assessment |
|  | 1.13. | You achieve a passing score on the written mid-term |
|  | Learning Objectives |
|  | 1.a. | Identify the process to add the DFS Role |
|  | 1.b. | Examine the benefit of DFS as opposed to tradition folder sharing |
|  | 1.c. | Explain the process of DFS replication |
|  | 1.d. | Identify the process to add the FSRM role |
|  | 1.e. | Compare a soft quota and hard quota |
|  | 1.f. | Identify the process to enable File Screening |
|  | 1.g. | Identify the requirements for BitLocker |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Complete in class activity-Configure DFS (learning materials/NetLabs) |
|  | Learning Materials |
|  | DFS | [LP3.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=e122556f-dab1-46b2-8c3b-b7580634ad4e) |
| 2. | Complete MOAC Lesson 4 lab/worksheets (online)-Configuring DFS |
| 3. | Listen to lecture (in person)-Configuring DFS |
| 4. | Read Chapter 4 |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the Configure DFS PAT |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for mid-term lab assessment (Embargoed documents) |
| 5. | Prepare for mid-term written assessment (Proprietary Content) |

Configure DFS PAT

Directions

Complete MOAC online lab worksheet lessons 4 (online, proprietary)
Complete in class lab activity

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Configure local storage |

Rating Scale

|  |  |
| --- | --- |
| Value | Description |
| 19 | Each question is worth one point for a total of 19 questions/screenshots throughout the lesson which address the criteria below. (Does not include lab challenge at the end if worksheet) |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | You add the Distributed File System role | Met Not Met |
| 2. | You configure DFS Namespace | Met Not Met |
| 3. | You configure DFS replication | Met Not Met |
| 4. | Configure local storage | Met Not Met |
| 5. | You achieve a passing score on the written quiz | Met Not Met |
| 6. | You achieve a passing score on the MOAC lab worksheet | Met Not Met |
| 7. | You achieve a passing score on the mid-term lab assessment | Met Not Met |
| 8. | You achieve a passing score on the written mid-term | Met Not Met |

Configure FSRM

Overview/Purpose

Data management is simplified through the use of reporting using File System Resource Manager. The learner will use FSRM to create reports and file type screens to demonstrate the ability to manage data within the infrastructure.

Target Competencies

|  |  |
| --- | --- |
| 1. | Configure local storage |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | MOAC lab manual and worksheets: Configure DFS; Configure FSRM; Configure File Services and Disk Encryption PATs |
|  | 1.3. | NetLabs in-class activity |
|  | 1.4. | Mid-term lab assessment |
|  | 1.5. | Mid-term written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 1.1. | You add the Distributed File System role |
|  | 1.2. | You configure DFS Namespace |
|  | 1.3. | You configure DFS replication |
|  | 1.4. | You add the File Server Resource Manager role service |
|  | 1.5. | You create disk usage quotas |
|  | 1.6. | You manage files using File Screening |
|  | 1.7. | You create a file screen exception |
|  | 1.8. | You create storage reports based on usage |
|  | 1.9. | You configure EFS and Bitlocker |
|  | 1.10. | You achieve a passing score on the written quiz |
|  | 1.11. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.12. | You achieve a passing score on the mid-term lab assessment |
|  | 1.13. | You achieve a passing score on the written mid-term |
|  | Learning Objectives |
|  | 1.a. | Identify the process to add the DFS Role |
|  | 1.b. | Examine the benefit of DFS as opposed to tradition folder sharing |
|  | 1.c. | Explain the process of DFS replication |
|  | 1.d. | Identify the process to add the FSRM role |
|  | 1.e. | Compare a soft quota and hard quota |
|  | 1.f. | Identify the process to enable File Screening |
|  | 1.g. | Identify the requirements for BitLocker |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Complete in class Activity-Configuring FSRM (learning materials/NetLabs) |
|  | Learning Materials |
|  | FSRM | [LP4.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=9a47ec7d-8cb7-4a43-8261-338c55976143) |
| 2. | Complete MOAC Lesson 5 lab/worksheets (online)-Configuring FSRM |
| 3. | Listen to lecture (in person)-Configuring FSRM |
| 4. | Read Chapter 5 |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the FSRM PAT |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for mid-term lab assessment (Embargoed documents) |
| 5. | Prepare for mid-term written assessment (Proprietary Content) |

Configure FSRM PAT

Directions

Complete MOAC online lab worksheet lessons 5 (online, proprietary)
Complete in class lab activity

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Configure local storage |

Rating Scale

|  |  |
| --- | --- |
| Value | Description |
| 15 | Each question is worth one point for a total of 15 questions/screenshots throughout the lesson which address the criteria below. (Does not include lab challenge at the end if worksheet) |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | You add the File Server Resource Manager role service | Met Not Met |
| 2. | You create disk usage quotas | Met Not Met |
| 3. | You manage files using File Screening | Met Not Met |
| 4. | You create a file screen exception | Met Not Met |
| 5. | You create storage reports based on usage | Met Not Met |
| 6. | You achieve a passing score on the written quiz | Met Not Met |
| 7. | You achieve a passing score on the MOAC lab worksheet | Met Not Met |
| 8. | You achieve a passing score on the mid-term lab assessment | Met Not Met |
| 9. | You achieve a passing score on the written mid-term | Met Not Met |

Configure File Services and Disk Encryption

Overview/Purpose

Disk encryption is a level of security that can prevent data loss or theft. The learner will identify the different types of data security including disk encryption and BitLocker file and drive encryption.

Target Competencies

|  |  |
| --- | --- |
| 1. | Configure local storage |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | MOAC lab manual and worksheets: Configure DFS; Configure FSRM; Configure File Services and Disk Encryption PATs |
|  | 1.3. | NetLabs in-class activity |
|  | 1.4. | Mid-term lab assessment |
|  | 1.5. | Mid-term written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 1.1. | You add the Distributed File System role |
|  | 1.2. | You configure DFS Namespace |
|  | 1.3. | You configure DFS replication |
|  | 1.4. | You add the File Server Resource Manager role service |
|  | 1.5. | You create disk usage quotas |
|  | 1.6. | You manage files using File Screening |
|  | 1.7. | You create a file screen exception |
|  | 1.8. | You create storage reports based on usage |
|  | 1.9. | You configure EFS and Bitlocker |
|  | 1.10. | You achieve a passing score on the written quiz |
|  | 1.11. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.12. | You achieve a passing score on the mid-term lab assessment |
|  | 1.13. | You achieve a passing score on the written mid-term |
|  | Learning Objectives |
|  | 1.a. | Identify the process to add the DFS Role |
|  | 1.b. | Examine the benefit of DFS as opposed to tradition folder sharing |
|  | 1.c. | Explain the process of DFS replication |
|  | 1.d. | Identify the process to add the FSRM role |
|  | 1.e. | Compare a soft quota and hard quota |
|  | 1.f. | Identify the process to enable File Screening |
|  | 1.g. | Identify the requirements for BitLocker |
| 2. | Manage and secure servers and desktops |
|  | Assessment Strategies |
|  | 2.1. | Written quiz |
|  | 2.2. | Netlabs in-class activity |
|  | 2.3. | Final Project |
|  | 2.4. | Final written assessment |
|  | Criteria |
|  | 2.1. | You remove the UI from server |
|  | 2.2. | You manage the core server from desktop using Powershell |
|  | 2.3. | You manage updates to servers and desktops |
|  | 2.4. | You reduce the attack surface on desktops |
|  | 2.5. | You configure Bitlocker encryption |
|  | 2.6. | You configure Applocker policies on desktops |
|  | 2.7. | You achieve a passing score on the written quiz |
|  | 2.8. | You achieve a passing score on the MOAC lab worksheet |
|  | 2.9. | You achieve a passing score on the Final project |
|  | 2.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 2.a. | Identify process to remove the UI from the server |
|  | 2.b. | Identify the procedure to remotely administer the server using PowerShell |
|  | 2.c. | Examine the proper methods in which to deploy updates |
|  | 2.d. | Identify the services and applications that can be disabled on the desktop |
|  | 2.e. | Identify the benefits of Bitlocker encryption over EFS |
|  | 2.f. | Identify the service requirements to enable Applocker on the desktop |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Complete in class Activity-Configure File Services and Disk Encryption (learning materials/NetLabs)  |
|  | Learning Materials |
|  | Configuring Files Services and Powershell | [LP5.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=e602f8ab-e7f4-4115-9f8e-72f768b4aec3) |
| 2. | Complete MOAC Lesson 6 lab/worksheets (online)-Configure File Services and Disk Encryption |
| 3. | Listen to lecture (in person)- Configure File Services and Disk Encryption |
| 4. | Read Chapter 6 |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the Configure File Services and Disk Encryption PATs |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for mid-term lab assessment (Embargoed documents) |
| 5. | Prepare for mid-term written assessment (Proprietary Content) |

Configure File Services and Disk Encryption PAT

Directions

Complete MOAC online lab worksheet lesson 6 (online, proprietary)
Complete in class lab activity

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Configure local storage |

Rating Scale

|  |  |
| --- | --- |
| Value | Description |
| 24 | Each question is worth one point for a total of 24 questions/screenshots throughout the lesson which address the criteria below. (Does not include lab challenge at the end if worksheet) |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | You configure EFS and Bitlocker | Met Not Met |
| 2. | You achieve a passing score on the written quiz | Met Not Met |
| 3. | You achieve a passing score on the MOAC lab worksheet | Met Not Met |
| 4. | You achieve a passing score on the mid-term lab assessment | Met Not Met |
| 5. | You achieve a passing score on the written mid-term | Met Not Met |

Configure Advanced Audit Policies

Overview/Purpose

The learner will discover the various methods to create a digital audit trail on the network to determine when files were accessed and by whom or whether or not a user is attempting to use a portable storage device on the network.

Target Competencies

|  |  |
| --- | --- |
| 1. | Configure Group Policies |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | MOAC lab manual and worksheet: Configure Group Policy Processing and Settings PAT |
|  | 1.3. | NetLabs in-class activity |
|  | 1.4. | Final Project |
|  | 1.5. | Final written assessment |
|  | Criteria |
|  | 1.1. | You configure the processing order of group policies |
|  | 1.2. | You configure security filtering within group policies |
|  | 1.3. | You configure inheritance blocking |
|  | 1.4. | You configure enforced policies |
|  | 1.5. | You configure loopback processing |
|  | 1.6. | You configure client side extension behaviors |
|  | 1.7. | You force policy updates |
|  | 1.8. | You achieve a passing score on the written quiz |
|  | 1.9. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.10. | You achieve a passing score on the Final project |
|  | 1.11. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 1.a. | Explain the order in which group policies are processed |
|  | 1.b. | Explain what security filtering is as it relates to GPO processing |
|  | 1.c. | Identify the process to block policies from processing |
|  | 1.d. | Identify the method to apply updates immediately |
|  | 1.e. | Identify the purpose behind enforced policies |
| 2. | Manage Group Policy Objects |
|  | Assessment Strategies |
|  | 2.1. | Written quiz |
|  | 2.2. | MOAC lab manual and worksheet: Manage Group Policy Objects and Preferences PAT |
|  | 2.3. | Final Project |
|  | 2.4. | Final written assessment |
|  | 2.5. | Netlabs in-class activity |
|  | Criteria |
|  | 2.1. | You configure software installation policies |
|  | 2.2. | You configure folder redirection |
|  | 2.3. | You configure scripts within policies |
|  | 2.4. | You apply administrative templates to policies |
|  | 2.5. | You backup and restore policies |
|  | 2.6. | You reset the default GPOs |
|  | 2.7. | You delegate Group Policy management |
|  | 2.8. | You achieve a passing score on the written quiz |
|  | 2.9. | You achieve a passing score on the MOAC lab worksheet |
|  | 2.10. | You achieve a passing score on the Final project |
|  | 2.11. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 2.a. | Identify the file requirements for software installation policies |
|  | 2.b. | Identify the permission requirements for folder redirection |
|  | 2.c. | Explain why UNC is required for script execution |
|  | 2.d. | Explain what administrative templates are |
|  | 2.e. | Identify what is not backed up when GPOs are backed up within the GPMC |
|  | 2.f. | Identify why and how you would reset default GPOs |
| 3. | Manage and secure servers and desktops |
|  | Assessment Strategies |
|  | 3.1. | Written quiz |
|  | 3.2. | Netlabs in-class activity |
|  | 3.3. | Final Project |
|  | 3.4. | Final written assessment |
|  | Criteria |
|  | 3.1. | You remove the UI from server |
|  | 3.2. | You manage the core server from desktop using Powershell |
|  | 3.3. | You manage updates to servers and desktops |
|  | 3.4. | You reduce the attack surface on desktops |
|  | 3.5. | You configure Bitlocker encryption |
|  | 3.6. | You configure Applocker policies on desktops |
|  | 3.7. | You achieve a passing score on the written quiz |
|  | 3.8. | You achieve a passing score on the MOAC lab worksheet |
|  | 3.9. | You achieve a passing score on the Final project |
|  | 3.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 3.a. | Identify process to remove the UI from the server |
|  | 3.b. | Identify the procedure to remotely administer the server using PowerShell |
|  | 3.c. | Examine the proper methods in which to deploy updates |
|  | 3.d. | Identify the services and applications that can be disabled on the desktop |
|  | 3.e. | Identify the benefits of Bitlocker encryption over EFS |
|  | 3.f. | Identify the service requirements to enable Applocker on the desktop |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Complete in class Activity-Configure Advanced Audit Policies (learning materials/NetLabs)  |
|  | Learning Materials |
|  | Powershell Files for Activity | [POSHBuild-Scripts-CSV-Data.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=2218d624-f842-4bd3-a9e7-f12e588c19c1) |
|  | Configure Audit Policies and PowerShell | [LP6.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=6ae8a794-e3e6-4d6a-85a0-33695320005c) |
| 2. | Complete MOAC Lesson 7 lab/worksheets (online)-Configure Advanced Audit Policies |
| 3. | Listen to lecture (in person)-Configure Advanced Audit Policies |
| 4. | Read Chapter 7 |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the Configure Advanced Audit Policies PAT |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for mid-term lab assessment (Embargoed documents) |
| 5. | Prepare for mid-term written assessment (Proprietary Content) |

Configure Advanced Audit Policies PAT

Directions

Complete MOAC online lab worksheet lesson 7 (online, proprietary)
Complete in class lab activity

|  |  |
| --- | --- |
| Environment | Lab |

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Configure monitoring for servers |
| 2. | Configure Group Policies |
| 3. | Manage and secure servers and desktops |

Rating Scale

|  |  |
| --- | --- |
| Value | Description |
| 13 | Each question is worth one point for a total of 13 questions/screenshots throughout the lesson which address the criteria below. (Does not include lab challenge at the end if worksheet) |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | You add common counters to Performance Monitor | Met Not Met |
| 2. | You manage updates to servers and desktops | Met Not Met |
| 3. | You reduce the attack surface on desktops | Met Not Met |
| 4. | You configure Applocker policies on desktops | Met Not Met |
| 5. | You achieve a passing score on the written quiz | Met Not Met |
| 6. | You achieve a passing score on the MOAC lab worksheet | Met Not Met |
| 7. | You achieve a passing score on the mid-term lab assessment | Met Not Met |
| 8. | You achieve a passing score on the written mid-term | Met Not Met |

Configure DNS Zones and Records

Overview/Purpose

DNS is critical in Microsoft Active Directory networking. In this activity, the learner will create separate DNS zones and alias's while linking those aliases to multiple websites demonstrating the ability to manager DNS records.

Target Competencies

|  |  |
| --- | --- |
| 1. | Configure DNS server resources and records |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | MOAC lab manual and worksheet:Configure DNS Records and Zones PAT |
|  | 1.3. | NetLabs in-class activity |
|  | 1.4. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 1.1. | You install the DNS role |
|  | 1.2. | You create a primary DNS forward lookup zone |
|  | 1.3. | You configure Active Directory integrated DNS zones |
|  | 1.4. | You create DNS resource records |
|  | 1.5. | You configure secure dynamic updates |
|  | 1.6. | You use PowerShell and command line tools for DNS |
|  | 1.7. | You achieve a passing score on the written quiz |
|  | 1.8. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.9. | You achieve a passing score on the Final project |
|  | 1.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 1.a. | Identify what the DNS role is responsible for on an Active Directory network |
|  | 1.b. | Identify the Service Resource records created after a promotion |
|  | 1.c. | Explain the benefit of Active Directory Integrated DNS |
|  | 1.d. | Identify the DNS requirements for Active Directory |
|  | 1.e. | Identify the process to enable secure dynamic updates |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Complete in class Activity-Configure DNS Zones and Records (learning materials/NetLabs) |
|  | Learning Materials |
|  | Configure DNS Zones and Records | [LP8.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=2f638ced-f1da-4812-b6db-9cf12b5aad03) |
| 2. | Complete MOAC Lesson 8,9 lab/worksheets (online)-Configure DNS Zones and Records |
| 3. | Listen to lecture (in person)-Configure DNS Zones and Records |
| 4. | Read Chapter 8,9 |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the Configure DNS Zones and Records PATs |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for Final Project (Embargoed documents) |
| 5. | Prepare for Final written assessment (Proprietary Content) |

Configure DNS Records and Zones PAT

Directions

Complete MOAC online lab worksheet lessons 8,9 (online, proprietary)
Complete in class lab activity

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Configure DNS server resources and records |

Rating Scale

|  |  |
| --- | --- |
| Value | Description |
| 51 | Each question is worth one point for a total of 51 questions/screenshots throughout the lessons (8,9) which address the criteria below. (Does not include lab challenge at the end if worksheet) |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | Configure DNS server resources and records | Met Not Met |
| 2. | You install the DNS role | Met Not Met |
| 3. | You create a primary DNS forward lookup zone | Met Not Met |
| 4. | You configure Active Directory integrated DNS zones | Met Not Met |
| 5. | You create DNS resource records | Met Not Met |
| 6. | You configure secure dynamic updates | Met Not Met |
| 7. | You use PowerShell and command line tools for DNS | Met Not Met |
| 8. | You achieve a passing score on the written quiz | Met Not Met |
| 9. | You achieve a passing score on the MOAC lab worksheet | Met Not Met |
| 10. | You achieve a passing score on the written Final | Met Not Met |

Configure Domain Controllers

Overview/Purpose

Configuring the Domain Controllers includes security as well as identifying the operation roles. The learner will use PowerShell and other tools to identify the operation roles as well as transfer to an alternative domain controller.

Target Competencies

|  |  |
| --- | --- |
| 1. | Configure Domain Controllers |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | MOAC lab manual and worksheet:Configure Domain Controllers PAT |
|  | 1.3. | NetLabs in-class activity |
|  | 1.4. | Final Project |
|  | 1.5. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 1.1. | You add the Active Directory Domain Services role |
|  | 1.2. | You add the DNS role |
|  | 1.3. | You promote the server to a domain controller |
|  | 1.4. | You create a new AD forest |
|  | 1.5. | You create a new AD Tree |
|  | 1.6. | You create a new AD domain |
|  | 1.7. | You ensure DNS records are present in the forward lookup zones |
|  | 1.8. | You add a reverse lookup zone in DNS |
|  | 1.9. | You achieve a passing score on the written quiz |
|  | 1.10. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.11. | You achieve a passing score on the Final project |
|  | 1.12. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 1.a. | Identify two methods to add the AD DS role |
|  | 1.b. | Identify a requirement for Active Directory |
|  | 1.c. | Identify the process to promote the server to a domain controller |
|  | 1.d. | Identify the difference between creating a new domain and adding to an existing domain |
|  | 1.e. | Identify the DNS records that result from a successful promotion |
|  | 1.f. | Identify the four troubleshooting commands to correct any promotion DNS issues |
|  | 1.g. | Identify the purpose of adding a reverse lookup zone |
| 2. | Manage and maintain Active Directory |
|  | Assessment Strategies |
|  | 2.1. | Written quiz |
|  | 2.2. | MOAC lab manual and worksheet:Maintain Active Directory and configure Account Policies PAT |
|  | 2.3. | NetLabs in-class activity |
|  | 2.4. | Final Project |
|  | 2.5. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 2.1. | You automate user account management |
|  | 2.2. | You create a backup of the Active Directory database |
|  | 2.3. | You restore Active Directory from Backup |
|  | 2.4. | You configure Active Directory snapshots |
|  | 2.5. | You clean up metadata within Active Directory |
|  | 2.6. | You optimize the Active Directory Database |
|  | 2.7. | You achieve a passing score on the written quiz |
|  | 2.8. | You achieve a passing score on the MOAC lab worksheet |
|  | 2.9. | You achieve a passing score on the Final project |
|  | 2.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 2.a. | Identify the process to automate user account management |
|  | 2.b. | Identify the boot mode used to restore an Active Directory database |
|  | 2.c. | Identify what is included in a system state backup |
|  | 2.d. | Identify the process to enable Active Directory snapshots |
|  | 2.e. | Identify the purpose behind cleaning up Active Directory metadata |
|  | 2.f. | Explain the steps required to optimize the Active Directory database |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Complete in class Activity-Configure Domain Controllers(learning materials/NetLabs)Learning Materials:Configure Domain Controllers net lab activity [LP9.docx](https://nwtc.wids.org/PublicDocuments.axd?DocumentID=b787a482-855e-473e-bcfc-a0afef29c1f1) |
| 2. | Complete MOAC Lesson 16 lab/worksheets (online)-Configure Domain Controllers |
| 3. | Listen to lecture (in person)-Configure Domain Controllers |
| 4. | Read Chapter 16 |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the Configure Domain Controllers PAT |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for Final Project (Embargoed documents) |
| 5. | Prepare for Final written assessment (Proprietary Content) |

Configure Domain Controllers PAT

Directions

Complete MOAC online lab worksheet lesson 16 (online, proprietary)
Complete in class lab activity

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Configure Domain Controllers |

Rating Scale

|  |  |
| --- | --- |
| Value | Description |
| 13 | Each question is worth one point for a total of 13 questions/screenshots throughout the lesson which address the criteria below. (Does not include lab challenge at the end if worksheet) |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | Configure Domain Controllers | Met Not Met |
| 2. | You add the Active Directory Domain Services role | Met Not Met |
| 3. | You add the DNS role | Met Not Met |
| 4. | You promote the server to a domain controller | Met Not Met |
| 5. | You create a new AD forest | Met Not Met |
| 6. | You create a new AD Tree | Met Not Met |
| 7. | You create a new AD domain | Met Not Met |
| 8. | You ensure DNS records are present in the forward lookup zones | Met Not Met |
| 9. | You add a reverse lookup zone in DNS | Met Not Met |
| 10. | You achieve a passing score on the written quiz | Met Not Met |
| 11. | You achieve a passing score on the MOAC lab worksheet | Met Not Met |
| 12. | You achieve a passing score on the Final project | Met Not Met |
| 13. | You achieve a passing score on the written Final | Met Not Met |

Maintain Active Directory and configure Account Policies

Overview/Purpose

Managing Active Directory includes optimization and restoration. The learner will perform an AD restoration after first backing up the database.

Target Competencies

|  |  |
| --- | --- |
| 1. | Manage and maintain Active Directory |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | MOAC lab manual and worksheet:Maintain Active Directory and configure Account Policies PAT |
|  | 1.3. | NetLabs in-class activity |
|  | 1.4. | Final Project |
|  | 1.5. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 1.1. | You automate user account management |
|  | 1.2. | You create a backup of the Active Directory database |
|  | 1.3. | You restore Active Directory from Backup |
|  | 1.4. | You configure Active Directory snapshots |
|  | 1.5. | You clean up metadata within Active Directory |
|  | 1.6. | You optimize the Active Directory Database |
|  | 1.7. | You achieve a passing score on the written quiz |
|  | 1.8. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.9. | You achieve a passing score on the Final project |
|  | 1.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 1.a. | Identify the process to automate user account management |
|  | 1.b. | Identify the boot mode used to restore an Active Directory database |
|  | 1.c. | Identify what is included in a system state backup |
|  | 1.d. | Identify the process to enable Active Directory snapshots |
|  | 1.e. | Identify the purpose behind cleaning up Active Directory metadata |
|  | 1.f. | Explain the steps required to optimize the Active Directory database |
| 2. | Automate administrative tasks using PowerShell |
|  | Assessment Strategies |
|  | 2.1. | Written quiz |
|  | 2.2. | Netlabs in-class activity |
|  | 2.3. | Final Project |
|  | 2.4. | Final written assessment |
|  | Criteria |
|  | Performance will be satisfactory when: |
|  | 2.1. | You add roles and features using PowerShell |
|  | 2.2. | You create a script for a domain controller deployment |
|  | 2.3. | You import Active Directory Objects using PowerShell |
|  | 2.4. | You run PowerShell scripts using task scheduler |
|  | 2.5. | You automate network documentation |
|  | 2.6. | You perform remote tasks using PowerShell |
|  | 2.7. | You create data structure |
|  | 2.8. | You achieve a passing score on the written quiz |
|  | 2.9. | You achieve a passing score on the Final project |
|  | 2.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 2.a. | Identify the commands to add, remove and list Windows features and roles |
|  | 2.b. | Explain the steps required to promote a server to a domain controller |
|  | 2.c. | Explain the methods to import and export domain objects |
|  | 2.d. | Identify the proper command structure within task scheduler to initiate a PowerShell Script |
|  | 2.e. | Identify the CIM/WMI classes and objects needed to create thorough remote documentation |
|  | 2.f. | Identify the command structure to create and secure data structures |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Complete in class Activity-Maintain Active Directory and Configure Account Policies(learning materials/NetLabs) |
|  | Learning Materials |
|  | Maintain AD and Account Policies | [LP10.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=d47473ee-29e5-4e5a-add9-767f1db2c6dd) |
|  | Maintain Active Directory and Configure Account Policies | [LP10.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=2f2e91cb-ad8c-4da0-834b-53db7d92c256) |
| 2. | Complete MOAC Lesson 17,18 lab/worksheets (online)-Maintain Active Directory and Configure Account Policies |
| 3. | Listen to lecture (in person)-Maintain Active Directory and Configure Account Policies |
| 4. | Read Chapter 17,18 |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the Maintain Active Directory and Configure Account Policies PAT |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for Final Project (Embargoed documents) |
| 5. | Prepare for Final written assessment (Proprietary Content) |

Maintain Active Directory and configure Account Policies PAT

Directions

Complete MOAC online lab worksheet lessons 17,18 (online, proprietary)
Complete in class lab activity

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Manage and maintain Active Directory |
| 2. | Automate administrative tasks using PowerShell |

Rating Scale

|  |  |
| --- | --- |
| Value | Description |
| 17 | Each question is worth one point for a total of 17 questions/screenshots throughout the lesson(only lesson 17 is submitted) which address the criteria below. (Does not include lab challenge at the end if worksheet) |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | Manage and maintain Active Directory | Met Not Met |
| 2. | You automate user account management | Met Not Met |
| 3. | You create a backup of the Active Directory database | Met Not Met |
| 4. | You restore Active Directory from Backup | Met Not Met |
| 5. | You configure Active Directory snapshots | Met Not Met |
| 6. | You clean up metadata within Active Directory | Met Not Met |
| 7. | You optimize the Active Directory Database | Met Not Met |
| 8. | You add roles and features using PowerShell | Met Not Met |
| 9. | You create a script for a domain controller deployment | Met Not Met |
| 10. | You import Active Directory Objects using PowerShell | Met Not Met |
| 11. | You perform remote tasks using PowerShell | Met Not Met |
| 12. | You achieve a passing score on the written quiz | Met Not Met |
| 13. | You achieve a passing score on the MOAC lab worksheet | Met Not Met |
| 14. | You achieve a passing score on the Final project | Met Not Met |
| 15. | You achieve a passing score on the written Final | Met Not Met |

Configure Group Policy Processing and Settings

Overview/Purpose

Creating and configuring group policies also includes the understanding of how the policies are processed. This understanding can aid in troubleshooting as identifying points of latency.

Target Competencies

|  |  |
| --- | --- |
| 1. | Configure Group Policies |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | MOAC lab manual and worksheet: Configure Group Policy Processing and Settings PAT |
|  | 1.3. | NetLabs in-class activity |
|  | 1.4. | Final Project |
|  | 1.5. | Final written assessment |
|  | Criteria |
|  | 1.1. | You configure the processing order of group policies |
|  | 1.2. | You configure security filtering within group policies |
|  | 1.3. | You configure inheritance blocking |
|  | 1.4. | You configure enforced policies |
|  | 1.5. | You configure loopback processing |
|  | 1.6. | You configure client side extension behaviors |
|  | 1.7. | You force policy updates |
|  | 1.8. | You achieve a passing score on the written quiz |
|  | 1.9. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.10. | You achieve a passing score on the Final project |
|  | 1.11. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 1.a. | Explain the order in which group policies are processed |
|  | 1.b. | Explain what security filtering is as it relates to GPO processing |
|  | 1.c. | Identify the process to block policies from processing |
|  | 1.d. | Identify the method to apply updates immediately |
|  | 1.e. | Identify the purpose behind enforced policies |
| 2. | Manage Group Policy Objects |
|  | Assessment Strategies |
|  | 2.1. | Written quiz |
|  | 2.2. | MOAC lab manual and worksheet: Manage Group Policy Objects and Preferences PAT |
|  | 2.3. | Final Project |
|  | 2.4. | Final written assessment |
|  | 2.5. | Netlabs in-class activity |
|  | Criteria |
|  | 2.1. | You configure software installation policies |
|  | 2.2. | You configure folder redirection |
|  | 2.3. | You configure scripts within policies |
|  | 2.4. | You apply administrative templates to policies |
|  | 2.5. | You backup and restore policies |
|  | 2.6. | You reset the default GPOs |
|  | 2.7. | You delegate Group Policy management |
|  | 2.8. | You achieve a passing score on the written quiz |
|  | 2.9. | You achieve a passing score on the MOAC lab worksheet |
|  | 2.10. | You achieve a passing score on the Final project |
|  | 2.11. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 2.a. | Identify the file requirements for software installation policies |
|  | 2.b. | Identify the permission requirements for folder redirection |
|  | 2.c. | Explain why UNC is required for script execution |
|  | 2.d. | Explain what administrative templates are |
|  | 2.e. | Identify what is not backed up when GPOs are backed up within the GPMC |
|  | 2.f. | Identify why and how you would reset default GPOs |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Complete in class activity-Configure Group Policy Processing and Settings(learning materials/NetLabs) |
|  | Learning Materials |
|  | Group Policy Processing | [LP11.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=d849729d-88f6-46c8-8c9b-2040ce8d95b0) |
| 2. | Complete MOAC Lesson 19,20 lab/worksheets (online)-Configure Group Policy Processing and Settings |
| 3. | Listen to lecture (in person)-Configure Group Policy Processing and Settings |
| 4. | Read Chapter 19,20 |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the Configure Group Policy Processing and Settings PAT |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for Final Project (Embargoed documents) |
| 5. | Prepare for Final written assessment (Proprietary Content) |

Configure Group Policy Processing and Settings PAT

Directions

Complete MOAC online lab worksheet lessons 19,20 (online, proprietary)
Complete in class lab activity

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Configure Group Policies |

Rating Scale

|  |  |
| --- | --- |
| Value | Description |
| 7 | Each question is worth one point for a total of 7questions/screenshots throughout the lesson (only lesson 19 is submitted) which address the criteria below. (Does not include lab challenge at the end if worksheet) |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | Configure Group Policies | Met Not Met |
| 2. | You configure the processing order of group policies | Met Not Met |
| 3. | You configure security filtering within group policies | Met Not Met |
| 4. | You configure inheritance blocking | Met Not Met |
| 5. | You configure enforced policies | Met Not Met |
| 6. | You configure loopback processing | Met Not Met |
| 7. | You configure client side extension behaviors | Met Not Met |
| 8. | You force policy updates | Met Not Met |
| 9. | You achieve a passing score on the written quiz | Met Not Met |
| 10. | You achieve a passing score on the MOAC lab worksheet | Met Not Met |
| 11. | You achieve a passing score on the Final project | Met Not Met |
| 12. | You achieve a passing score on the written Final | Met Not Met |

Manage Group Policy Objects and Preferences

Overview/Purpose

Group Policy Preferences are additional client side extensions that provide additional configuration opportunity for the system administrator. The learner will configure a variety of preferences in the Active Directory Domain.

Target Competencies

|  |  |
| --- | --- |
| 1. | Configure Group Policies |
|  | Assessment Strategies |
|  | 1.1. | Written quiz |
|  | 1.2. | MOAC lab manual and worksheet: Configure Group Policy Processing and Settings PAT |
|  | 1.3. | NetLabs in-class activity |
|  | 1.4. | Final Project |
|  | 1.5. | Final written assessment |
|  | Criteria |
|  | 1.1. | You configure the processing order of group policies |
|  | 1.2. | You configure security filtering within group policies |
|  | 1.3. | You configure inheritance blocking |
|  | 1.4. | You configure enforced policies |
|  | 1.5. | You configure loopback processing |
|  | 1.6. | You configure client side extension behaviors |
|  | 1.7. | You force policy updates |
|  | 1.8. | You achieve a passing score on the written quiz |
|  | 1.9. | You achieve a passing score on the MOAC lab worksheet |
|  | 1.10. | You achieve a passing score on the Final project |
|  | 1.11. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 1.a. | Explain the order in which group policies are processed |
|  | 1.b. | Explain what security filtering is as it relates to GPO processing |
|  | 1.c. | Identify the process to block policies from processing |
|  | 1.d. | Identify the method to apply updates immediately |
|  | 1.e. | Identify the purpose behind enforced policies |
| 2. | Manage Group Policy Objects |
|  | Assessment Strategies |
|  | 2.1. | Written quiz |
|  | 2.2. | MOAC lab manual and worksheet: Manage Group Policy Objects and Preferences PAT |
|  | 2.3. | Final Project |
|  | 2.4. | Final written assessment |
|  | 2.5. | Netlabs in-class activity |
|  | Criteria |
|  | 2.1. | You configure software installation policies |
|  | 2.2. | You configure folder redirection |
|  | 2.3. | You configure scripts within policies |
|  | 2.4. | You apply administrative templates to policies |
|  | 2.5. | You backup and restore policies |
|  | 2.6. | You reset the default GPOs |
|  | 2.7. | You delegate Group Policy management |
|  | 2.8. | You achieve a passing score on the written quiz |
|  | 2.9. | You achieve a passing score on the MOAC lab worksheet |
|  | 2.10. | You achieve a passing score on the Final project |
|  | 2.11. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 2.a. | Identify the file requirements for software installation policies |
|  | 2.b. | Identify the permission requirements for folder redirection |
|  | 2.c. | Explain why UNC is required for script execution |
|  | 2.d. | Explain what administrative templates are |
|  | 2.e. | Identify what is not backed up when GPOs are backed up within the GPMC |
|  | 2.f. | Identify why and how you would reset default GPOs |
| 3. | Configure Group Policy Preferences |
|  | Assessment Strategies |
|  | 3.1. | Written quiz |
|  | 3.2. | MOAC lab manual and worksheet: Manage Group Policy Objects and Preferences PAT |
|  | 3.3. | Final Project |
|  | 3.4. | Final written assessment |
|  | 3.5. | Netlabs in-class activity |
|  | Criteria |
|  | 3.1. | You configure preference settings |
|  | 3.2. | You configure Windows settings |
|  | 3.3. | You create a drive mapping |
|  | 3.4. | You perform file and folder deployment |
|  | 3.5. | You perform shortcut deployment |
|  | 3.6. | You configure control panel settings |
|  | 3.7. | You configure item-level targeting |
|  | 3.8. | You achieve a passing score on the written quiz |
|  | 3.9. | You achieve a passing score on the MOAC lab worksheet |
|  | 3.10. | You achieve a passing score on the Final project |
|  | 3.11. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 3.a. | Compare Group Policy Preferences and Group Policies |
|  | 3.b. | Identify the requirements to create a drive mapping |
|  | 3.c. | Explain item level targeting |
|  | 3.d. | Explain the options for folder and file deployment |
|  | 3.e. | Explain the preference settings as it relates to update, create and remove |
|  | 3.f. | Identify the process to create a shortcut deployment |
| 4. | Manage and secure servers and desktops |
|  | Assessment Strategies |
|  | 4.1. | Written quiz |
|  | 4.2. | Netlabs in-class activity |
|  | 4.3. | Final Project |
|  | 4.4. | Final written assessment |
|  | Criteria |
|  | 4.1. | You remove the UI from server |
|  | 4.2. | You manage the core server from desktop using Powershell |
|  | 4.3. | You manage updates to servers and desktops |
|  | 4.4. | You reduce the attack surface on desktops |
|  | 4.5. | You configure Bitlocker encryption |
|  | 4.6. | You configure Applocker policies on desktops |
|  | 4.7. | You achieve a passing score on the written quiz |
|  | 4.8. | You achieve a passing score on the MOAC lab worksheet |
|  | 4.9. | You achieve a passing score on the Final project |
|  | 4.10. | You achieve a passing score on the written Final |
|  | Learning Objectives |
|  | 4.a. | Identify process to remove the UI from the server |
|  | 4.b. | Identify the procedure to remotely administer the server using PowerShell |
|  | 4.c. | Examine the proper methods in which to deploy updates |
|  | 4.d. | Identify the services and applications that can be disabled on the desktop |
|  | 4.e. | Identify the benefits of Bitlocker encryption over EFS |
|  | 4.f. | Identify the service requirements to enable Applocker on the desktop |

### Learning Activities

|  |  |
| --- | --- |
| 1. | Complete in class activity-Manage Group Policy Objects and Preferences(learning materials/NetLabs) |
|  | Learning Materials |
|  | Manage GPOS | [LP12.docx](https://nwtc.wids.org//PublicDocuments.axd?DocumentID=b9c86057-0419-41ca-a79b-a23ce1d27d7f) |
| 2. | Complete MOAC Lesson 21,22 lab/worksheets (online)-Manage Group Policy Objects/Preferences |
| 3. | Listen to lecture (in person)-Manage Group Policy Objects/Preferences |
| 4. | Read Chapter 21,22 |

### Assessment Activities

|  |  |
| --- | --- |
| 1. | Complete the Manage Group Policy Objects and Preferences PAT |
| 2. | Complete NetLabs in-class activity |
| 3. | Prepare for written quiz (Proprietary Content) |
| 4. | Prepare for Final Project (Embargoed documents) |
| 5. | Prepare for Final written assessment (Proprietary Content) |

Manage Group Policy Objects and Preferences PAT

Directions

Complete MOAC online lab worksheet lessons 21 and 22 (online, proprietary)
Complete in class lab activity

Target Course Competencies

|  |  |
| --- | --- |
| 1. | Manage Group Policy Objects |
| 2. | Configure Group Policy Preferences |

Rating Scale

|  |  |
| --- | --- |
| Value | Description |
| 11 | Each question is worth one point for a total of 11 questions/screenshots throughout the lesson (only lesson 21 is submitted)which address the criteria below. (Does not include lab challenge at the end if worksheet) |

### Scoring Guide

|  |  |  |
| --- | --- | --- |
|  | Criteria | Ratings |
| 1. | Manage Group Policy Objects | Met Not Met |
| 2. | You configure software installation policies | Met Not Met |
| 3. | You configure folder redirection | Met Not Met |
| 4. | You configure scripts within policies | Met Not Met |
| 5. | You apply administrative templates to policies | Met Not Met |
| 6. | You backup and restore policies | Met Not Met |
| 7. | You reset the default GPOs | Met Not Met |
| 8. | You delegate Group Policy management | Met Not Met |
| 9. | Configure Group Policy Preferences | Met Not Met |
| 10. | You configure preference settings | Met Not Met |
| 11. | You configure Windows settings | Met Not Met |
| 12. | You create a drive mapping | Met Not Met |
| 13. | You perform file and folder deployment | Met Not Met |
| 14. | You perform shortcut deployment | Met Not Met |
| 15. | You configure control panel settings | Met Not Met |
| 16. | You configure item-level targeting | Met Not Met |
| 17. | You achieve a passing score on the written quiz | Met Not Met |
| 18. | You achieve a passing score on the MOAC lab worksheet | Met Not Met |
| 19. | You achieve a passing score on the Final project | Met Not Met |
| 20. | You achieve a passing score on the written Final | Met Not Met |

 Except where otherwise noted, this work by [Northeast Wisconsin Technical College](http://www.nwtc.edu/), [Wisconsin Technical College System INTERFACE Consortium](http://advancewisconsin.org/advance-wisconsin/it/) is licensed under [CC BY 4.0](http://creativecommons.org/licenses/by/4.0).  Third Party marks and brands are the property of their respective holders.  Please respect the copyright and terms of use on any webpage links that may be included in this document.

This workforce product was funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The U.S. Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This is an equal opportunity program. Assistive technologies are available upon request and include Voice/TTY (771 or 800-947-6644