Installing and Configuring Windows Server 2012 (ITNW 1370)

Credit: 3 semester credit hours (2 hours lecture, 4 hours lab)

Prerequisite/Co-requisite: None

Course Description

This course will validate the initial implementation and configuration of the Windows Server 2012 core services, such as Active Directory and the networking services. This course along with the remaining two courses will collectively validate the skills and knowledge necessary for implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server 2012 environment.

Required Textbook and Materials

1. *70-410 Installing and Configuring Windows Server 2012 R2 with Lab Manual Set,* Microsoft Official Academic Course, Wiley, 2014.

    ISBN number for print book is 978-1-118-96609-9

2. Computer Networking and Troubleshooting Technology students are required to have one portable external Hard Drive with a capacity of 500GB or larger to be used for the duration of the time to complete their respective degree.

Course Objectives

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

1. Install and configure servers.
2. Configure server roles and features.
3. Configure Hyper-V
4. Deploy and configure core network services.
5. Install and administer Active Directory.
6. Create and manage Group Policy.

Course Outline

1. Installing Servers
    a. Selecting a Windows Server 2012 R2 Edition
    b. Installing Windows Server 2012 R2
    c. Choosing Installation Options
    d. Upgrading Servers
    e. Migrating Roles
2. Configuring Servers
    a. Completing Post-Installation Tasks
    b. Using Roles, Features, and Services
    c. Using Server Manager
    d. Delegating Server Administration

    c.   Creating Internet Domains

    d.   Deploying a DNS Server

13. Installing Domain Controllers
    a.   Introducing Active Directory
    b.   Deploying Active Directory Domain Services

14. Creating and Managing Active Directory Users and Computers
    a.   Creating User Objects
    b.   Creating Computer Objects
    c.   Managing Active Directory Objects

15. Creating and Managing Active Directory Groups and Organizational Units
    a.   Working with Organizational Units
    b.   Working with Groups

16. Creating Group Policy Objects
    a.   Introducing Group Policy
    b.   Using the Group Policy Management Console
    c.   Creating Multiple Local GPOs

17. Configuring Security Policies
    a.   Configuring Security Policies Using Group Policy
    b.   Configuring Local Users and Groups
    c.   Configuring User Account Control

18. Configuring Application Restricted Policies
    a.   Installing Software with Group Policy
    b.   Configuring Software Restriction Policies
    c.   Using AppLocker

19. Configuring Windows Firewall
    a.   Building Firewall
    b.   Using the Windows Firewall Control Panel
    c.   Using the Windows Firewall with Advanced Security Console

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

Labs	25%
Study Guides	10%
Chapter Tests	35%

Final Exam   30%

Course Requirements
1. Demonstrate proficiency through hands-on labs as assigned.
2. Completion of Study Guides as assigned.

Course Policies
1. No food, drinks, or use of tobacco products in class.
2. Electronic devices not being used for the class, such as phones and headphones, must be turned off while in class.
3. Do not bring children to class.
4. Certification: If a student passes the certification test that is associated with this class, you will receive an "A" on the final exam and credit for 25% of your labs. If you have missed a previous test, you must still take the final exam to substitute for that grade.
5. Attendance Policy: Three absences are allowed. If a student is tardy to class or departs early three (3) times, it will be equal to one (1) absence. Each absence beyond three absences will result in a 2 point deduction from your final grade.
6. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.
7. Tools: Return all tools and/or software to their designated place.
8. A grade of 'C' or better must be earned in this course for credit toward degree requirement.
9. Additional course policies, as defined by the individual course instructor, will be outlined in the course addendum and provided by the instructor.

Disabilities Statement
The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Technical Requirements (for courses using Blackboard)
The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at:

https://help.blackboard.com/en-us/Learn/9.1_2014_04/Student/015_Browser_Support/015_Browser_Support_Policy

 A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of the online technology and resources.

Student Code of Conduct Statement

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the LIT Catalog and Student Handbook. The LIT Catalog and Student Handbook may be accessed at www.lit.edu or obtained in print upon request at the Student Services Office. Please note that the online version of the LIT Catalog and Student Handbook supersedes all other versions of the same document.

Certification Requirement

CNTT majors are required to earn certification in one of the following areas prior to graduation.

- A+ Certification
- Cisco Certified Entry Network Technician (CCENT)
- Cisco Certified Network Associate (CCNA)
- Microsoft Certified Solutions Associate (MCSA)

This course covers the material to prepare for Microsoft's Installing and Configuring Windows Server 2012 certification, exam number 70-410. This exam, along with 70-411 and 70-412, applies as credit toward the MCSA: Windows Server 2012. Students are responsible for scheduling and paying for the certification through the LIT Testing Center. More information about the certification can be found online at https://www.microsoft.com/en-us/learning/exam-70-410.aspx.

Course Schedule

Week of	Topic	Reference
Week 1	Syllabus and policies	
	Course Introduction	
	Introduction to Virtual Labs	
	Chapter 1: Installing Servers	pp. 1-31
Week 2	Chapter 2: Configuring Servers	pp. 32-58
Week 3	Chapter 3: Configuring Local Storage	pp. 59-96
Week 4	Chapter 4: Configuring File and Share Access	pp. 97-134
	Exam Chapters 1-4	
Week 5	Chapter 5: Configuring Print and Document Services	pp. 135-168
	Chapter 6: Configuring Servers for Remote Management	pp. 169-196
Week 6	Chapter 7: Creating and Configuring Virtual Machine	pp. 197-224
	Chapter 8: Creating and Configuring Virtual Machine Storage	pp. 225-247

Week of	Topic	Reference
Week 7	Chapter 9: Creating and Configuring Virtual Networks Exam Chapters 5-9	pp. 248-266
Week 8	Chapter 10: Configuring IPv4 and IPv6 Addressing	pp. 267-297
	Chapter 11: Deploying and Configuring the DHCP Service	pp. 298-332
Week 9	Chapter 12: Deploying and Configuring the DNS Service	pp. 333-369
Week 10	Exam Chapters 10-12	
	Chapter 13: Installing Domain Controllers	pp. 370-404
Week 11	Chapter 14: Creating and Managing Active Directory Users and Computers	pp. 405-429
Week 12	Chapter 15: Creating and Managing Active Directory Groups and Organizational Units	pp. 430-459
	Chapter 16: Creating Group policy Objects	pp. 460-488
Week 13	Exam Chapters 13-16	
	Chapter 17: Configuring Security policies	pp. 489-521
Week 14	Chapter 18: Configuring Application Restriction Policies	pp. 522-549
	Chapter 19: Configuring Windows Firewall	pp. 550-573
Week 15	Exam 17-19	
Week 16	Final Exam	Comprehensive

Contact Information:

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