Course Outline for CNT 56

ADMINISTERING WINDOWS SERVER MCSA II

Effective: Spring 2016

I. CATALOG DESCRIPTION:
CNT 56 — ADMINISTERING WINDOWS SERVER MCSA II — 3.00 units

This Administering Windows Server course covers the second of three exams required for Microsoft Certified Solutions Associate (MCSA) certification. The three MCSA exams collectively validate the skills and knowledge necessary for implementing, maintaining, and provisioning services in a Windows Server environment. This course prepares students to prove mastery of services such as user and group management, network access, and data security. In addition, this course also covers: Implementing a Group Policy Infrastructure, Managing User and Service Accounts, Maintaining Active Directory Domain Services, Configuring and Troubleshooting DNS, Remote Access, Network Policy Server Role, Optimizing File Services, Increasing File System Security, and Implementing Update Management.

2.50 Units Lecture 0.50 Units Lab

Strongly Recommended
CNT 52 - Networking Fundamentals

Grading Methods:
Letter or P/NP

Discipline:

	MIN
Lecture Hours:	45.00
Lab Hours:	27.00
Total Hours:	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. CNT52

IV. MEASURABLE OBJECTIVES:

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

   A. Deploy and manage server images
   B. Implement patch management
   C. Monitor servers
   D. Configure Distributed File System (DFS)
   E. Configure File Server Resource Manager (FSRM)
   F. Configure File Services and disk encryption
   G. Configure advanced Audit Policies
   H. Configure DNS zones and DNS records
   I. Configure VPN and routing
   J. Configure Direct Access
   K. Configure a Network Policy Server
   L. Configure Network Access Protection (NAP)
   M. Configure Server Authentication
   N. Configure Domain Controllers with Active Directory
   O. Configure Account Policies and Group Policies

V. CONTENT:
   A. Configure File and Print Services
      1. Configure Distributed File System (DFS)
      2. Configure File Server Resource Manager (FSRM)
      3. Configure BitLocker encryption and the Network Unlock feature
      4. Implement auditing using Group Policy
   B. Configure network services and access
      1. Configure primary and secondary DNS zones

2. Create and configure DNS Resource Records
3. Configure virtual private network (VPN) and routing
4. Configure DirectAccess
C. Configure a Network Policy Server (NPS) infrastructure
1. Configure a RADIUS server and certificates
2. Configure network policies for VPN clients
3. Configure Network Access Protection (NAP)
D. Configure and manage Active Directory
1. Create and configure Service Accounts
2. Configure domain controllers and RODC
3. Back up Active Directory and SYSVOL
4. Configure domain and local user password policy settings
E. Configure and manage Group Policy
1. Configure Group Policy processing
2. Manage Group Policy objects (GPOs)
3. Configure Group Policy preferences (GPP)

VI. METHODS OF INSTRUCTION:
A. **Internships** - Our school, in partnership with local business, offer various types of internships. Our internship office has been active - with much success - placing our graduates in rewarding positions that lead to permanent employment.
B. **Classroom Activity** - Student labs include: installation and configuration of servers with clients, creation of user and computer accounts, configuration of DNS, DHCP, and IIS servers.
C. **Simulations** - MOAC Labs consist of virtual computers (Servers and clients) hosted on the Internet on Microsoft sites. They are pre-configured to be readily accessible to specific tasks, so students advance quickly on topics.
D. **Lab** - Students identify and configure the settings for correct connectivity using IPv4 and IPv6. They install most server roles, and configure the servers in a virtual business environment.
E. **Demonstration** - Various configurations and server roles are demonstrated, then repeated by students.

VII. TYPICAL ASSIGNMENTS:
A. Reading:
1. Read Chapter 3. Discuss Microsoft's DNS and how it integrates into Active Directory for unified functions.
B. Writing:
1. Explain in one page how you would set up Group Policies to allow only certain groups of people to get access to "CurrentProjects" folder.
C. Project:
1. Backup the DNS, DHCP, and Active Directory to an external devices, and explain how you would restrict access and protect these databases.

VIII. EVALUATION:
A. **Methods**

1. Exams/Tests
2. Quizzes
3. Simulation
4. Class Participation
5. Lab Activities

B. **Frequency**

1. Weekly lab assignments, simulations, and quizzes
2. Weekly class participation including discussion of real life on-the-job scenarios and current IT news
3. One Mid-term Exam
4. One Final Exam

IX. TYPICAL TEXTS:
1. *MCSA Windows Server 2012 Complete Study Guide: Exams 70-410, 70-411, 70-412, and 70-417*. 1 ed., Sybex/Wiley, 2013.
2. Microsoft Official Academic Course. *70-411 Administering Windows Server 2012*. 2 ed., Microsoft Press, 2014.
3. Russell, Charlie. *Exam Ref 70-411 Administering Windows Server 2012 R2 (MCSA)*. 1 ed., Microsoft Press, 2014.

X. OTHER MATERIALS REQUIRED OF STUDENTS:
A. Internet Access to MOAC Labs 70-411 Administering Windows Server 2012 R2 (MCSA) Online Access Registration Code by Microsoft Official Academic Course ©2015, Digital Content