SYLLABUS

DATE OF LAST REVIEW: 02/2013
CIP CODE: 11.0901
SEMESTER: Departmental Syllabus
COURSE TITLE: Advanced System Manager (Windows 2008 Network)
COURSE NUMBER: CIST-0218
CREDIT HOURS: 4
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
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PREREQUISITES: CIST-0161 System Manager (Windows 2008 Server)

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, http://www.kckccbookstore.com for the required text for your particular class.

COURSE DESCRIPTION: This class covers the Microsoft 2008 Network Infrastructure used by server operating system. This class is designed to be a preparatory course for taking the Microsoft MCP exam. This certification exam measures your ability to install, manage, monitor, configure, and troubleshoot DNS, DHCP, Remote Access, Network Protocols, and IP Routing in a Windows 2008 network infrastructure. In addition, this provides the skills required to manage, monitor, and troubleshoot Network Address Translation and Certificate Services.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing,
performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:

I. Installing, Configuring, Managing, Monitoring, and Troubleshooting DNS
   A. Install, configure, and troubleshoot DNS
   B. Manage and monitor DNS

II. Installing, Configuring, Managing, Monitoring, and Troubleshooting DHCP
   A. Install, configure, and troubleshoot DHCP
   B. Manage and monitor DHCP

III. Configuring, Managing, Monitoring, and Troubleshooting Remote Access
   A. Configure and troubleshoot remote access
   B. Manage and monitor remote access
   C. Configure remote access security

IV. Installing, Configuring, Managing, Monitoring, and Troubleshooting Network Protocols
   A. Install, configure, and troubleshoot network protocol
   B. Configure TCP/IP packet filters
   C. Configure and troubleshoot network protocol security
   D. Manage and monitor network traffic
   E. Configure and troubleshoot IPSec

V. Configuring, Managing, Monitoring, and Troubleshooting WINS
   A. Configure WINS
   B. Manage and monitor WINS

VI. Installing, Configuring, Managing, Monitoring, and Troubleshooting IP Routing
   A. Install, configure, and troubleshoot IP routing protocols
   B. Manage and monitor IP routing

VII. Installing, Configuring, and Troubleshooting Network Address Translation (NAT)
   A. Install Internet Connection Sharing
   B. Install NAT
   C. Configure NAT properties and interfaces

VIII. Installing, Configuring, Managing, Monitoring, and Troubleshooting Certificate Services
   A. Install and configure Certificate Authority (CA)
   B. Issue and revoke certificates

EXPECTED LEARNER OUTCOMES:

A. Upon completion of the course the student will be able to install the DNS Server service, configure a root name server, zones, caching-only server, a DNS client, zones for dynamic updates, implement a delegated zone for DNS, create DNS resource records, manage and monitor DNS.

B. Upon completion of the course the student will be able to install the DHCP Server service, create and manage DHCP scopes, configure DHCP for DNS integration, authorize a DHCP server in Active Directory, manage and monitor DHCP.
C. Upon completion of the course the student will be able to configure inbound connections, create a remote access policy, configure a remote access profile, configure a virtual private network (VPN), configure multilink connections, configure routing and remote access for DHCP integration, manage and monitor remote access.

D. Upon completion of the course the student will be able to configure authentication protocols, encryption protocols, install, configure, and troubleshoot network protocols TCP/IP and NWLink protocol and configure the network bindings, enable, configure and troubleshoot IPSec, configure IPSec for transport mode or tunnel mode, customize IPSec policies and rules, manage and monitor IPSec.

E. Upon completion of the course the student will be able to install, configure, manage, monitor, and troubleshoot WINS in a Windows 2008 Network Infrastructure.

F. Upon completion of the course the student will be able to install, configure, manage, monitor, and troubleshoot IP Routing in a Windows 2008 Network Infrastructure.

G. Upon completion of the course the student will be able to install, configure, and troubleshoot Network Address Translation (NAT).

H. Upon completion of the course the student will be able to install, configure, manage, monitor, and troubleshoot Certificate Services, remove the Encrypting File System (EFS) recovery keys, and demonstrate an ability to meet deadlines.

**COURSE COMPETENCIES:**

Upon completion of the course the student will be able to install the DNS Server service, configure a root name server, zones, caching-only server, a DNS client, zones for dynamic updates, implement a delegated zone for DNS, create DNS resource records, manage and monitor DNS.

1. Student should be able to install the DNS Server service.
2. Student should be able to configure a root name server.
3. Student should be able to configure zones.
4. Student should be able to configure a caching-only server.
5. Student should be able to configure a DNS client.
6. Student should be able to configure zones for dynamic updates.
7. Student should be able to implement a delegated zone for DNS.
8. Student should be able to manually create DNS resource records.
9. Student should be able to Manage and monitor DNS.
   Upon completion of the course the student will be able to install the DHCP Server service, create and manage DHCP scopes, configure DHCP for DNS integration, authorize a DHCP server in Active Directory, manage and monitor DHCP.
10. Student should be able to install the DHCP Server service.
11. Student should be able to create and manage DHCP scopes.
12. Student should be able to configure DHCP for DNS integration.
13. Student should be able to authorize a DHCP server in Active Directory.
14. Student should be able to manage and monitor DHCP.
   Upon completion of the course the student will be able to configure inbound connections, create a remote access policy, configure a remote access profile, configure a virtual private network (VPN), configure multilink connections, configure routing and remote access for DHCP integration, manage and monitor remote access.
15. Student should be able to configure inbound connections.
16. Student should be able to create a remote access policy.
17. Student should be able to configure a remote access profile.
18. Student should be able configure a virtual private network (VPN).
19. Student should be able to configure Routing and Remote Access for DHCP Integration.
20. Student should be able to manage and monitor remote access.
   Upon completion of the course the student will be able to configure authentication
protocols, encryption protocols, install, configure, and troubleshoot network protocols TCP/IP and NWLink protocol and configure the network bindings, enable, configure and troubleshoot IPSec, configure IPSec for transport mode or tunnel mode, customize IPSec policies and rules, manage and monitor IPSec.

21. Student should be able to configure authentication protocols.
22. Student should be able to configure encryption protocols.
23. Student should be able to install, configure, and troubleshoot network protocols TCP/IP and NWLink protocol and configure the network bindings.
24. Student should be able to enable, configure and troubleshoot IPSec.
25. Student should be able to configure IPSec for transport mode or tunnel mode.
26. Student should be able to customize IPSec policies and rules.
27. Student should be able to manage and monitor IPSec.
   Upon completion of the course the student will be able to install, configure, manage, monitor, and troubleshoot WINS in a Windows 2008 Network Infrastructure.
28. Student should be able to install and configure WINS.
29. Student should be able to manage, monitor, and troubleshoot WINS.
   Upon completion of the course the student will be able to install, configure, manage, monitor, and troubleshoot IP Routing in a Windows 2008 Network Infrastructure.
30. Student should be able to install and configure IP Routing.
31. Student should be able to manage, monitor, and troubleshoot IP Routing.
   Upon completion of the course the student will be able to install, configure, and troubleshoot Network Address Translation (NAT).
32. Student should be able to install, configure, and Network Address Translation (NAT).
33. Student should be able to troubleshoot Network Address Translation (NAT).
   Upon completion of the course the student will be able to install, configure, manage, monitor, and troubleshoot Certificate Services, remove the Encrypting File System (EFS) recovery keys, and demonstrate an ability to meet deadlines.
34. Student should be able to install, configure, manage, monitor, and troubleshoot Certificate Services.
35. Student should be able to remove the Encrypting File System (EFS) recovery keys.
36. Student should be able to meet deadlines.

ASSESSMENT OF LEARNER OUTCOMES:

Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

SPECIAL NOTES:

This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

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