

## MCSA: Windows 2012 Server

SecureNinja's MCSA: Windows 2012 Server (9) nine day training and certification boot camp in Washington, DC and San Diego, CA will provide students a primary set of Windows Server skills that are relevant across multiple solution areas in a business environment. During the training course you will take (3) three exams enabling you attain the Microsoft Certified Solutions Associate certification. The Microsoft Certified Solutions Associate (**MCSA): Windows Server 2012** certification includes the following Microsoft exams.

- Microsoft Course 20410 (Exam 70-410)
- Microsoft Course 20411 (Exam 70-411)
- Microsoft Course 20412 (Exam 70-412)

### What's Included

- 9 Days of expert MCSA: Windows 2012 Server Training
- Hands-on training by a Microsoft certified instructor
- All course materials
- Practice exams
- 3 Microsoft Test Vouchers
- On-site exam testing
- Patented Pre-Present-Post Mentoring
- Daily Breakfast, Lunch and Snacks
- Courseware
- SecureNinja student kit
- Opportunity to re-sit the class for up to 1 year

### Prerequisites

Candidates should have at least 2 years of experience in information systems. The student should have passed A+, Network+ or possess an equivalent in job experience.

### Course Length

72 Hours

## Detailed Exams and Topics Covered

### Microsoft Course 20410

**Exam: 70-410-** The course is part one, of a series of three courses, which provide the skills and knowledge necessary to implement a core Windows Server 2012 infrastructure in an existing enterprise environment. The three courses in total collectively cover implementing, managing, maintaining, and provisioning services and infrastructure in a Windows Server 2012 environment. While there is some cross-over in skillset and tasks across the courses, this course primarily covers the initial implementation and configuration of those core services, such as Active Directory Domain Services, networking services, and initial Hyper-V configuration.

## Objectives

At the completion of this course, students will be able to:

- Install and configure Windows Server 2012.
- Describe Active Directory Domain Services and install a domain controller.
- Create and configure user, group, and computer objects.
- Use Windows PowerShell and other command-line tools to create and configure AD DS objects.
- Configure IPv4 for simple scenarios.
- Install and configure a DHCP server.
- Install and configure DNS service.
- Configure IPv6 for simple scenarios.
- Configure local storage on a server.
- Create and secure files shares and shared printers.
- Create and manage Group Policy objects.
- Secure Windows Servers by Using Group Policy Objects.
- Implement Server Virtualization with Hyper-V.

## Audience

This course is intended for Information Technology (IT) Professionals who have good Windows operating system knowledge and experience and want to acquire the skills and knowledge necessary to implement the core infrastructure services in an existing Windows Server 2012 environment. Although students would benefit from having some previous Windows Server experience, they must have good hands-on Windows Client experience with Windows Vista, Windows 7, or Windows 8.

## Prerequisites

Before attending this course, students must have:

- A good understanding of networking fundamentals.
- An understanding and experience configuring security and administration tasks in an enterprise environment.
- Experience supporting or configuring Microsoft Windows clients

## Course Outline

### Deploying and Managing Windows Server 2012

This module introduces the new Windows Server 2012 administrative interface. This module covers the different roles and features that are available with the Windows Server 2012 operating system. It also discusses the various installation and configuration options you can use when deploying and configuring Windows Server 2012.

- Windows Server 2012 Overview
- Overview of Windows Server 2012 Management
- Installing Windows Server 2012
- Post-Installation Configuration of Windows Server 2012

- Introduction to Windows PowerShell

After completing this module, students will be able to:

- Describe Windows Server 2012.
- Describe the management tools available in Windows Server 2012.
- Install Windows Server 2012.
- Perform post-installation configuration of Windows Server 2012.
- Perform basic administrative tasks using Windows PowerShell.

## **Introduction to Active Directory Domain Services**

This module introduces Active Directory Domain Services (AD DS) in Windows Server 2012. It covers general AD DS infrastructure including forests, trees, schema, Global Catalog, Operations Masters. It also covers installing and configuring domain controllers.

- Overview of AD DS
- Overview of Domain Controllers
- Installing a Domain Controller

After completing this module, students will be able to:

- Describe the structure of Active Directory Domain Services (AD DS).
- Describe the purpose of domain controllers.
- Install a domain controller.

## **Managing Active Directory Domain Services Objects**

This module covers configuring Active Directory Objects such as users, groups and computers. The functionality of AD DS Administrative Tools is addressed, in addition to the configuration of user profiles and the process of delegating permissions to perform AD DS administration.

- Managing User Accounts
- Managing Group Accounts
- Managing Computer Accounts
- Delegating Administration

After completing this module, students will be able to:

- Manage user accounts with graphical tools.
- Manage groups with graphical tools.
- Manage computer accounts.
- Delegate permissions to perform AD DS administration.

## **Automating Active Directory Domain Services Administration**

This module covers using command-line tools to configure and administer AD DS. It introduces using Windows PowerShell cmdlets for AD DS administration, and using Windows PowerShell to perform bulk AD DS administrative operations.

- Using Command-line Tools for Administration
- Using Windows PowerShell for Administration
- Performing Bulk Operations with Windows PowerShell

After completing this module, students will be able to:

- Use command-line tools for AD DS administration.
- Use Windows PowerShell cmdlets for AD DS administration.
- Perform bulk operations by using Windows PowerShell.

## **Implementing IPv4**

This module covers Internet Protocol Version 4 (IPv4) addressing. It details the various IPv4 components, covers subnetting and supernetting, and discusses configuring and general troubleshooting of IPv4 addresses.

- Overview of TCP/IP
- Understanding IPv4 Addressing
- Subnetting and Supernetting
- Configuring and Troubleshooting IPv4

After completing this module, students will be able to:

- Describe the TCP/IP protocol suite.
- Describe IPv4 addressing.
- Determine a subnet mask necessary for supernetting or subnetting.
- Configure IPv4 and troubleshoot IPv4 communication.

## **Implementing DHCP**

This module covers the installation and configuration of DHCP as well as managing a DHCP database. It also covers security and monitoring of DHCP, including auditing and logging.

- Installing a DHCP Server Role
- Configuring DHCP Scopes
- Managing a DHCP Database
- Securing and Monitoring DHCP

After completing this module, students will be able to:

- Install the DHCP server role.
- Configure DHCP scopes.
- Manage a DHCP database.
- Secure and monitor the DHCP server role.

## **Implementing DNS**

This module covers name resolution for Windows Server and clients. It details the installation of a DNS server and configuring Active Directory Integrated DNS zones.

- Name Resolution for Windows Client and Servers
- Installing and Managing a DNS Server
- Managing DNS Zones

After completing this module, students will be able to:

- Describe name resolution for Windows operating system clients and Windows Server servers.
- Install and manage DNS service.
- Manage DNS zones.

## **Implementing IPv6**

This module covers understanding and implementing IPv6 addressing. It covers configuration and troubleshooting as well as co-existence with IPv4 using transition technologies.

- Overview of IPv6
- IPv6 Addressing
- Coexistence with IPv6
- IPv6 Transition Technologies

After completing this module, students will be able to:

- Describe the features and benefits of IPv6.
- Describe IPv6 addressing.
- Describe IPv6 coexistence with IPv4.
- Describe IPv6 transition technologies.

## **Implementing Local Storage**

This module covers the storage configuration options for Windows Server 2012, including managing disks and volumes and implementing file systems. It also covers creating and managing storage pools.

- Overview of Storage
- Managing Disks and Volumes
- Implementing Storage Spaces

After completing this module, students will be able to:

- Explain the various storage technologies.
- Manage disks and volumes.
- Implement Storage Spaces.

## **Implementing File and Print Services**

This module covers securing files, folders and network file shares, in addition to using shadow copies to protect network file shares. It also covers configuring network printing and creating a printer pool.

- Securing Files and Folders
- Protecting Shared Files and Folders Using Shadow Copies
- Configuring Network Printing

After completing this module, students will be able to:

- Secure shared files and folders.
- Protect shared files and folders by using shadow copies.
- Configure network printing.

### **Implementing Group Policy**

This module covers using Group Policy to centrally manage and apply configuration settings.

- Overview of Group Policy
- Group Policy Processing
- Implementing a Central Store for Administrative Templates

After completing this module, students will be able to:

- Create and manage Group Policy Objects.
- Describe Group Policy processing.
- Implement a central store for administrative templates.

### **Securing Windows Servers Using Group Policy Objects**

Increase security in a Windows Server 2012 infrastructure by using Group Policy Objects, AppLocker, and Windows Firewall.

- Windows Security Overview
- Configuring Security Settings
- Restricting Software
- Configuring Windows Firewall with Advanced Security

After completing this module, students will be able to:

- Describe Windows Security.
- Configure security settings by using Group Policy.
- Restrict unauthorized software from running on servers and clients.
- Configure Windows Firewall with Advanced Security.

### **Implementing Server Virtualization with Hyper-V**

This module describes Microsoft Virtualization technologies. It covers installing and configuring Hyper-V virtual machines, configuring virtual storage, and configuring virtual networks.

- Overview of Virtualization Technologies
- Implementing Hyper-V

- Managing Virtual Machine Storage
- Managing Virtual Networks

After completing this module, students will be able to:

- Understand and describe Microsoft's virtualization technologies.
- Implement Hyper-V.
- Manage virtual machine storage.
- Manage virtual networks

## Microsoft Course 20411

**Exam: 70-411-** This course is part two, of a series of three courses, which provide the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure in an existing enterprise environment. The three courses in total will collectively cover implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server 2012 environment. While there is some cross-over in skillset and tasks across the courses this course will primarily cover the administration tasks necessary to maintain a Windows Server 2012 infrastructure, such as user and group management, network access and data security.

### Audience Profile

This course is intended for Information Technology (IT) Professionals who are already very experienced system administrators working in a Windows Server 2008, Windows Server 2008 R2 or Windows Server 2012 environment and wish to acquire the skills and knowledge necessary to be able to manage and maintain the core infrastructure required for a Windows Server 2012 environment. The key focus for students in this course is to broaden the initial deployment of Windows Server 2012 services and infrastructure and provide the skills necessary to manage and maintain a domain based Windows Server 2012 environment, such as user and group management, network access and data security.

A secondary audience for this course will be candidates looking to take Exam 70-411: Administering Windows Server 2012, or are aspiring to acquire the Microsoft Certified Solutions Associate (MCSA) credential, either in its own right, or in order to proceed in acquiring the Microsoft Certified Solutions Expert (MCSE) credentials, for which the MCSA credential is a pre-requisite.

### At Course Completion

After completing this course, students will be able to:

- Implementing a Group Policy Infrastructure
- Managing User Desktops with Group Policy
- Managing User and Service Accounts
- Maintaining Active Directory Domain Services
- Configuring and Troubleshooting DNS
- Configuring and Troubleshooting Remote Access
- Installing, Configuring, and Troubleshooting the Network Policy Server role

- Implementing Network Access Protection? Optimizing File Services
- Configuring Encryption and Advanced Auditing
- Monitoring Windows Server 2012
- Deploying and Maintaining Server Images
- Implementing Update Management

## Prerequisites

Before attending this course, students must have:

- At least one year experience working with Windows Server 2008, Windows Server 2008 R2 or Windows Server 2012.
- Good knowledge and understanding of Active Directory and Networking Infrastructure
- Knowledge equivalent to the learning's covered in the "20410A:Installing and Configuring Windows Server 2012" course, as this course will build upon that knowledge

## Course Outline

### Implementing a Group Policy Infrastructure

This module covers how to implement a Group Policy infrastructure and then how to configure and manage that infrastructure. It also covers how to Scope GPOs using links, security groups, WMI filters, loopback processing, and Preference targeting as well as covering troubleshooting Policy Application.

- Understanding Group Policy
- Implement GPOs
- Manage Group Policy Scope
- Group Policy Processing
- Troubleshooting Policy Application

After completing this module, students will be able to:

- Implement a Group Policy Infrastructure
- Implement group Policy Objects
- Manage Group Policy Scope
- Outline and describe Group Policy Processing
- Troubleshoot Policy Application

### Managing User Desktops with Group Policy

This module covers Implementing Administrative templates, how to configure GPO preferences and folder redirection as well as managing software with Group Policy.

- Implement Administrative Templates
- Configure Group Policy Preferences
- Manage Software with GPSILab: Managing User Desktops with Group Policy
- Deploying Software Using Group Policy



- Implement Settings Using Group Policy Preferences
- Configuring Folder Redirection

After completing this module, students will be able to:

- Implement Administrative Templates
- Configure Group Policy Preferences
- Manage Software with Group Policy

## **Managing User and Service Accounts**

This module covers how to create and administer user accounts as well as configure user object attributes. It also covers automating user account creation and configuring Managed Service

- Create and Administer User Accounts
- Configure User Object Attributes
- Automate User Account Creation
- Configure Managed Service Accounts

After completing this module, students will be able to:

- Create and Administer User Accounts
- Configure User Object Attributes
- Automate User Account Creation
- Configure Managed Service Accounts

## **Maintaining Active Directory Domain Services**

This module covers how to implement Virtualized and Read Only Domain Controllers as well as how to perform common ADDS administrative tasks. The module will also cover how to manage the AD DS database.

- Implementing Virtualized Domain Controllers
- Implementing Read Only Domain Controllers
- Administering AD DS
- Managing the AD DS Database

After completing this module, students will be able to:

- Implement Virtualized Domain Controllers? Implement Read Only Domain Controllers
- Administer AD DS
- Manage the AD DS database

## **Configuring and Troubleshooting DNS**

This module covers installing and configuring the DNS server role as well as creating and configuring DNS zones and zone transfers. It will also cover managing and troubleshooting DNS.

- Installing the DNS Server Role
- Configuring the DNS Server Role
- Configuring DNS Zones
- Configuring DNS Zone Transfers
- Managing and Troubleshooting DNS

After completing this module, students will be able to:

- Install the DNS Server Role
- Configure the DNS Server Role
- Configure DNS Zones
- Configure DNS Zone Transfers
- Manage and Troubleshooting DNS

### **Configuring and Troubleshooting Remote Access**

This module covers configuring Network Access, creating and configuring VPNs and Network Policies as well as troubleshooting Routing and Remote Access. It will also cover configuration of DirectAccess.

- Configuring Network Access
- Configuring VPN Access
- Overview of Network Policies
- Troubleshooting Routing and Remote Access
- Configuring DirectAccess

After completing this module, students will be able to:

- Configuring Network Access
- Configuring VPN Access
- Overview of Network Policies
- Troubleshooting Routing and Remote Access? Configuring DirectAccess

### **Installing, Configuring, and Troubleshooting the Network Policy Server Role**

This module covers Installing and configuring Network Policy Server as well as RADIUS clients and servers. It will also deal with Network Policy Server authentication methods and monitoring and troubleshooting a Network Policy Server.

- Installing and Configuring a Network Policy Server
- Configuring RADIUS Clients and Servers
- NPS Authentication Methods
- Monitoring and Troubleshooting a Network Policy Server

After completing this module, students will be able to:

- Installing and Configuring a Network Policy Server
- Configuring RADIUS Clients and Servers
- NPS Authentication Methods
- Monitoring and Troubleshooting a Network Policy Server

## Implementing Network Access Protection

This module will provide an overview Network Access Protection, detailing the functionality and infrastructure requirements. It will also cover configuration, monitoring and troubleshooting NAP.

- Overview of Network Access Protection
- How NAP Works
- Configuring NAP
- Monitoring and Troubleshooting NAP

After completing this module, students will be able to:

- Understand the functionality and requirements of Network Access Protection (NAP)
- Configure and Implement NAP
- Monitor and Troubleshoot NAP

## Optimizing File Services

This module covers File Server Resource Manager and how to use it to implement Quotas, file screens and Storage Reports. It will also outline how to implement Classification Management and File Management Tasks as well as covering how to implement DFS, DFS Namespaces and configuration and troubleshooting DFS Replication.

- Overview of FSRM
- Using FSRM to Manage Quotas, File Screens, and Storage Reports? Implementing Classification Management and File Management Tasks
- DFS Overview
- Configuring DFS Namespaces
- Configuring and Troubleshooting DFS Replication

After completing this module, students will be able to:

- Implement Manage Quotas, File Screens, and Storage Reports using FSRM
- Implementing Classification Management and File Management Tasks
- Configuring DFS Namespaces
- Configuring and Troubleshooting DFS Replication

## Configuring Encryption and Advanced Auditing

This module covers how to increase file system security by configuring file encryption with EFS as well as how to enable and implement advanced auditing features.

- Encrypting Network Files with EFS
- Configuring Advanced Auditing

After completing this module, students will be able to:

- Encrypt network files with EFS
- Enable and implement advanced audit policies

## Deploying and Maintaining Server Images

This module covers the features and functionality of Windows Deployment Services (WDS) as well as providing considerations for its use. It will also cover how to Perform deployments with WDS.

- Overview of WDS
- Implementing Deployment with WDS
- Administering WDS

After completing this module, students will be able to:

- Understand the features and functionality of Windows Deployment Services (WDS)
- Determine the appropriateness of its use in particular situations
- Perform deployments with WDS

## Implementing Update Management

This module covers the features and functionality of Windows Server Update Services (WSUS) as well as detailing how to provision updates with WSUS.

- Overview of WSUS
- Deploying Updates with WSUS

After completing this module, students will be able to:

- Understand the features and functionality of Windows Server Update Services (WSUS)
- Deploy Updates with WSUS

## Monitoring Windows Server 2012

This module covers the various monitoring tools available in Windows Server 2012. It will cover the use of Performance Monitor as well as how to monitor and successfully utilize Event logs.

- Monitoring Tools
- Using Performance Monitor
- Monitoring Event Logs

After completing this module, students will be able to:

- Describe and understand the various monitoring tools available in Windows Server 2012
- Use Performance Monitor
- Monitor and successfully utilize Event logs.

## Microsoft Course 20412

**Exam: 70-412-** This course is part three, of a series of three courses, which provides the

skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure in an existing enterprise environment. The three courses in total will collectively cover implementing, managing, maintaining and provisioning services and infrastructure in a Windows Server 2012 environment. While there is some cross-over in skillset and tasks across the three courses this course will primarily cover advanced configuration and services tasks necessary to deploy, manage and maintain a Windows Server 2012 infrastructure, such as identity management and identity federation, network load balancing, business continuity, and disaster recovery, fault tolerance and rights management.

## **Audience Profile**

This course is intended for IT Professionals who are experienced implementing, managing and maintaining a Windows Server 2008, Windows Server 2008 R2 or Windows Server 2012 infrastructure in an existing Enterprise environment, and wish to acquire the skills and knowledge necessary to carry out advanced management and provisioning of services within that Windows Server 2012 environment. Students would typically be very experienced System Administrators and should have hands on experience working in a Windows Server 2008, Windows Server 2008 R2 or Windows Server 2012 environment.

A secondary audience for this course will be candidates looking to take Exam 70-41 Configuring Advanced Windows Server 2012 Services, or are aspiring to acquire the Microsoft Certified Solutions Associate (MCSA) credential, either in its own right, or in order to proceed in acquiring the Microsoft Certified Solutions Expert (MCSE) credentials, for which the MCSA credential is a pre-requisite.

## **At Course Completion**

After completing this course, students will be able to:

- Implementing Advanced Network Services
- Implementing Advanced File Services
- Implementing Dynamic Access Control
- Implementing Network Load Balancing
- Implementing Failover Clustering
- Implementing Failover Clustering with Hyper-V
- Implementing Disaster Recovery
- Implementing Distributed AD DS Deployments
- Implementing AD DS Sites and Replication? Implementing AD CS
- Implementing AD RMS
- Implementing AD FS

## **Prerequisites**

Before attending this course, students must have:

- Real world, hands on experience working in a Windows Server 2008, Windows Server 2008 R2 or Windows Server 2012 Enterprise environment
- Real world experience Implementing, Managing and Configuring Active Directory and Networking infrastructure

- Knowledge equivalent to the learning's covered in "20410A: Installing and Configuring Windows Server 2012" and "20411A: Administering Windows Server 2012" courses, as this course will build upon that knowledge

## Course Outline

### Implementing Advanced Network Services

This module covers configuring advanced features in DNS and DHCP with Windows Server 2012 as well as covering IP Address management (IPAM).

- Configuring Advanced DHCP Features
- Configuring Advanced DNS Settings
- Implementing IP Address Management

After completing this module, students will be able to:

- Configure advanced DNS services
- Configure advanced DHCP services
- Implement IP Address Management(IPAM)

### Implementing Advanced File Services

This module will cover learning how to configure and manage iSCSI and BranchCache as well as Implementing Windows 2012 features that optimize storage utilization such as File Server Resource Manager, File classification and Data Deduplication.

- Configuring iSCSI Storage
- Configuring Branch Cache
- Optimizing Storage Usage

After completing this module, students will be able to:

- Configuring iSCSI Storage ? Configuring Branch Cache
- Optimizing Storage Usage

### Implementing Dynamic Access Control

This module covers planning and implementing Dynamic Access Control (DAC).

- Overview of Dynamic Access Control
- Planning for a Dynamic Access Control Implementation
- Configuring Dynamic Access Control

After completing this module, students will be able to:

- Planning for a Dynamic Access Control Implementation
- Configuring Dynamic Access Control

### Implementing Network Load Balancing

This module covers how to plan and implement Network Load Balancing (NLB). It will cover managing and configuring an NLB cluster and validating High Availability for an NLB cluster.

- Network Load Balancing Overview
- Configuring a Network Load Balancing Cluster
- Planning a Network Load Balancing Implementation

After completing this module, students will be able to:

- Configuring a Network Load Balancing Cluster
- Planning a Network Load Balancing Implementation

### **Implementing Failover Clustering**

This module covers the Failover Clustering features in Windows Server 2012. It will cover how to implementing Failover Cluster, Configuring highly available applications and services on a failover cluster and how to maintain Failover Cluster and how to use new maintenance features such as Cluster Aware Updating (CAU). It will also cover how to implement multi-site failover cluster.

- Overview of Failover Clustering
- Implementing a Failover Cluster
- Configuring Highly-Available Applications and Services on a Failover Cluster?  
Maintaining a Failover Cluster
- Implementing a Multi-Site Failover Cluster

After completing this module, students will be able to:

- Implementing a Failover Cluster
- Configuring Highly-Available Applications and Services on a Failover Cluster
- Maintaining a Failover Cluster
- Implementing a Multi-Site Failover Cluster

### **Implementing Failover Clustering with Hyper-V**

This module will cover the options for making virtual machines highly available. It will cover how to implement virtual machines in failover cluster deployed on host, options for moving virtual machine or its storage and Provide high level overview about System Center Virtual Machine Manager (SCVMM) 2012.

- Overview of the Integration of Hyper-V with Failover Clustering
- Implementing Hyper-V Virtual Machines on Failover Clusters
- Implementing Hyper-V Virtual Machine Movement
- Managing Hyper-V Virtual Environments by Using System Center Virtual Machine Manager

After completing this module, students will be able to:

- Overview of the Integration of Hyper-V with Failover Clustering

- Implementing Hyper-V Virtual Machines on Failover Clusters
- Implementing Hyper-V Virtual Machine Movement
- Managing Hyper-V Virtual Environments by Using System Center Virtual Machine Manager

## **Implementing Disaster Recovery**

This module covers considerations that must be included when you are implementing a disaster recovery solution, how to Plan and implement a backup solution for Windows Server 2012, Plan and implement server and data recovery using Windows Server Backup and Microsoft Online Backup.

- Disaster Recovery Overview
- Implementing Windows Server Backup
- Implementing Server and Data Recovery

After completing this module, students will be able to:

- Disaster Recovery Overview
- Implementing Windows Server Backup using Windows Server Backup and Microsoft Online Backup
- Implementing Server and Data Recovery

## **Implementing Distributed AD DS Deployments**

This module will cover the components of a highly complex AD DS deployment such as Implementing a distributed AD DS deployment and Configuring AD DS Forest trusts.

- Overview of Distributed AD DS Deployments
- Implementing a Distributed AD DS Deployment
- Configuring AD DS Trusts

After completing this module, students will be able to:

- Describe and understand Distributed AD DS Deployments
- Implement a Distributed AD DS Deployment
- Configure AD DS Trusts

## **Implementing AD DS Sites and Replication**

This module covers how replication works in a Windows Server 2012 AD DS environment. It will include configuring AD DS sites in order to optimize AD DS network traffic and configuring and monitor AD DS replication.

- Overview of AD DS Replication
- Configuring AD DS Sites
- Configuring and Monitoring AD DS Replication

After completing this module, students will be able to:



- Understand and describe AD DS Replication
- Configure AD DS Sites
- Configure and Monitoring AD DS Replication

## Implementing AD CS

This module covers Describe the Public Key Infrastructure (PKI) components and concepts. It covers implementing a certification authority infrastructure, Planning and implementing a certificate template deployment using an AD CS certification authority and Planning and implementing certificate distribution and revocation.

- Public Key Infrastructure Overview
- Deploying Certification Authorities
- Deploying and Managing Certificate Templates
- Implementing Certificate Distribution and Revocation
- Managing Certificate Recovery

After completing this module, students will be able to:

- Understand and describe Public Key Infrastructure
- Deploy Certification Authorities
- Deploy and Manage Certificate Templates
- Implement Certificate Distribution and Revocation
- Manage Certificate Recovery

## Implementing AD RMS

This module covers features and functionality of Active Directory Rights Management Service (AD RMS). It will outline how it can be used to achieve content protection, Deploying and managing an AD RMS infrastructure and Configuring content protection using AD RMS.

- Active Directory Rights Management Overview
- Deploying and Managing an AD RMS Infrastructure
- Configuring AD RMS Content Protection
- Configuring External Access to AD RMS

After completing this module, students will be able to:

- Understand and Describe Active Directory Rights Management Service (AD RMS)
- Deploy and Manage an AD RMS Infrastructure
- Configure AD RMS Content Protection
- Configure External Access to AD RMS

## Implementing AD FS

This module covers detailing identity federation business scenarios and how AD FS can be used to address such scenarios. It will cover Configuring the AD FS prerequisites and deploying the AD FS services, Implementing AD FS to enable SSO in a single organization, and Implementing AD FS to enable SSO between federated partners.

- Overview of Active Directory Federation Services
- Deploying Active Directory Federation Services
- Implementing AD FS for a Single Organization
- Deploying AD FS in a Business to Business Federation Scenario

After completing this module, students will be able to:

- Understand and Describe Active Directory Federation Services
- Deploy Active Directory Federation Services
- Implement AD FS for a Single Organization
- Deploy AD FS in a Business to Business Federation Scenario

## About SecureNinja

SecureNinja Training is the DC's Area's #1 Expert IT Training Center . We are conveniently located in beautiful Historic Old Town Alexandria, VA enhancing your training experience and featuring:

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- SecureNinja is the ONLY Testing Center that offers ALL 5 industry standard test vendors in the DC / Baltimore Metropolitan Area. ( VUE, Kryterion-Online, Certiport, and Impact-Testing)
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- Washington, DC is our Home. Most training centers set up shop in hotels or rented centers. When you have a need, request or encounter a problem they are not there to answer. Our physical location in Alexandria is open 7 days a week and our staff always there to help.