

Course MS10972A

## Administering the Web Server (IIS) Role of Windows Server

**Length:** 5 Days

### **About this Course**

This course provides students with the fundamental knowledge and skills to configure and manage Internet Information Services. This course is intended to help provide pre-requisite skills supporting a broad range of Internet web applications, security, and knowledge to help support other products that use IIS such as Exchange and SharePoint. In keeping with that goal, this course will not focus on any particular web application or development practice.

### **Audience Profile**

This course is intended for IT Professionals already experienced in general Windows Server and Windows Client administration. No prior experience with any version of Internet Information Services is assumed.

### **Course Outline**

#### Module 1: Overview and Installing Internet Information Services

In this module students will learn about the network infrastructure planning and common concerns with implementing a web server. Students will perform an installation of IIS and verify the working web server by testing the default created website.

##### Lessons

Understanding a Web Server infrastructure

Installing Internet Information Services

Lab : Installing Internet Information Services

Perform a default installation of Internet Information Services

Verify and test the installation of a default installation of Internet Information Services

Describe the network infrastructure requirements for IIS.

Explain the communication process between a web server and a browser.

Perform a default installation of Internet Information Services.

Verify and configure the Windows Firewall for use with IIS.

Test a website by using a browser.

#### Module 2: Configuring The Default Website

In this module students will learn to plan and implement network requirements for a public website. Students will configure DNS records to support access to internal and public websites and create virtual directories and application folders for additional website content.

##### Lessons

Examining the Default Website using IIS Manager

Examining the Default IIS File Structure

Configuring DNS records for a website

Creating virtual directories and Applications

Lab : Configuring the Default website for public access

Configure DNS records for both the internal and public website access

Verify and test the internal and public website access using the DNS FQDN

Lab : Creating Virtual Directories and Applications

Create additional content location in the current website

Describe the default IIS folder structure to support a website.  
 Create a web page for site testing and verification.  
 Install additional required Role services to support a web application.  
 Plan the network and DNS records for internal and public website access.  
 Configure DNS records for an internal and public website.  
 Create normal folders, virtual directories and applications in a website for additional content.  
 Verify the new working website and content.

### Module 3: Configuring and Managing Application Pools

In this module students will learn the benefits to the application pool architecture. Students will create and configure application pools to support additional applications and configure application pool recycle settings. Students will perform recycle events and examine the event logs for recycle events.

#### Lessons

Defining the Application Pool Architecture

Creating and Managing Application Pools

Configuring Application Pool Recycling

Lab : Configuring and Managing Application Pools

Create and configure additional application pools

Lab : Configuring Application Pool Recycling

Configure application pool recycle settings

Perform recycling of an application pool and examine event logs for recycle events

Describe the benefits of the application pool architecture.

Configure application pools to support applications.

Configure application pool recycle settings.

Perform and examine application pool recycling.

Examine event logs for recycle events.

### Module 4: Creating additional websites

In this module students will learn how to examine and create new websites using unique bindings to avoid naming conflicts. Students will examine existing sites to determine and resolve binding conflicts then create new websites by using unique bindings.

#### Lessons

Understanding multiple websites on a single server

Examining and configuring the website bindings

Creating New Websites

Lab : Examining the existing websites and bindings for conflicts

Examine several websites and determine if binding conflicts exist

Lab : Creating new websites

Create new websites with unique bindings

Describe the purpose to website common settings and bindings

Examine existing websites for binding conflicts

Create new websites by using unique port bindings

Create new websites by using unique virtual IP addresses

Create new websites by using hostname bindings.

### Module 5: Configuring Website and Web application support

In this module students will learn to support additional application requirements including common configuration settings, platform support from the built-in web server, and include additional application support by using the Web Platform Installer.

#### Lessons

Configuring Common features

Adding support for web applications

Lab : Configuring Common Features

Configure and test common configuration settings

Lab : Adding support for web applications

Install and configure additional application support

Identify the IIS configuration files.

Configure common website and application settings.

Install and configure built-in application platform support.

Install and configure additional application support using the Web Platform Installer.

Module 6: Securing Websites and applications

In this module students will learn to secure internal and public websites for users and groups by using the built-in Windows and Basic authentication. Students will configure file system permissions for specific users and groups and secure a website using URL Authorization Rules.

Lessons

Defining Access Control for Web Servers, Sites and Applications

Configuring Authentication and permissions

Enabling URL Authorization Rules

Lab : Configuring Authentication and permissions

Install and configure the authentication mechanisms required to support both internal and public websites

Configure file system permissions and application pool permissions

Lab : Enabling URL Authorization Rules

Secure a website for users and groups using URL Authorization Rules

Describe the authentication mechanisms to secure internal and public websites.

Describe the process of assigning file system permissions for users and groups.

Install and configure Windows and Basic authentication.

Configure the file system permissions for a website.

Configure website security using URL Authorization Rules.

Module 7: Securing Data Transmissions with SSL

In this module students will protect customer data using websites configured for SSL. Students will install and configure PKI certificates on a web server, create secured bindings, and verify that a website data transmissions are secured.

Lessons

Understanding Certificates and SSL

Creating certificates for a web server

Adding a certificate to a website

Lab : Creating and installing a self-signed certificate

Create a self-signed certificate to secure a website

Lab : Adding a certificate to a website

Create a HTTPS binding to secure a website

Describe the PKI infrastructure for securing IIS with certificates

Explain the process of obtaining and installing certificates for internal and public websites.

Install and configure a certificate to secure a website.

Module 8: Using the Central Certificate Store

In this module students will install and configure the IIS 8.5 Central Certificate Store to enable centralized and improved certificate management, Students will configure a website to use a secured binding with the Central Certificate Store.

Lessons

Understanding the Central Certificate Store

Installing and configuring the Central Certificate Store

Lab : Installing and Configuring the Central Certificate Store

Configure the environment to store certificates for CCS

Describe the architecture of the Central Certificate Store

Plan for certificate storage  
 Install and configure CCS  
 Secure a website using a certificate in CCS

#### Module 9: Configuring Remote Administration

In this module students will configure secured remote management of web servers and websites. Create and configure permissions for site level administrators and developers, and verify web server and website management.

##### Lessons

Installing and Configuring the Management Service

Connecting to remote web servers and websites

Delegating Management Access

Lab : Installing and Configuring the Management Service

Install and configure the management service

Lab : Connecting to remote web servers and websites

Connect and manage a remote web server and website

Lab : Delegating Management Access

Configure permissions for a site level administrator or developer

Identify the need for remote management capabilities to manage a web server or website.

Install and configure the Management service for remote management.

Create and configure permissions for site level administrators and developers to manage a web server or website

#### Module 10: Implementing FTP

In this module students will learn configure a secured FTP site for users to store and retrieve files. Student will configure authentication, authorization and the FTP storage location. Students will retrieve and files using the native Windows FTP command.

##### Lessons

Implementing FTP

Configuring an FTP site

Configuring an FTP site

Lab : Configuring and using an FTP site

Install and configure a secured FTP site

Describe the FTP architecture and requirements for IIS

Configure FTP authentication, authorization and storage locations

Configure a secured FTP for users to store files

#### Module 11: Monitoring IIS

In this module students will learn to monitor IIS log files and performance counters using Log Parser and PerfMon. Students will identify common issues related to performance and attacks recorded in the log files.

##### Lessons

Monitoring IIS logs with Log Parser

Lab : Monitoring IIS logs with Log Parser

Analyze a set of IIS log files for possible issues using Log Parser

Describe common problems and attacks that are recorded in the log files.

Search the ISI log file for issues using Log Parser.

Identify common performance counters to create a baseline for IIS performance.

Analyze performance data for performance related problems using PerfMon.

#### Module 12: Backing up and Restoring IIS

In this module students will learn to backup and recover form a website or web server failure. Students will learn the importance of using high available techniques to avoid the recovery process.

##### Lessons

Understanding the IIS environment for Backup and restore

Performing a backup and restore of a website

Lab : Performing a backup and restore of a website

Perform a backup and restore of a website

Describe the critical components to backup on a web server and website

Perform a website backup, including content and configuration files

Perform a website restore using a recovery process

### Module 13: Building Load-Balanced Web Farms

In this module students will learn to increase reliability and performance of website by creating a web farm.

Students will improve the management and update capabilities of the websites by using shared content in both a network share and DFS-R. Student will improve web server and website management by using Shared Configurations.

#### Lessons

Understanding load-balancing Mechanisms

Building a Load-Balanced Web Farm using ARR

Sharing content to a Web Farm using a network share

Sharing content to a Web Farm using DFS-R

Sharing IIS Configurations in a Web Farm

Lab : Building a Load-Balanced Web Farm using ARR

Create a web farm by installing and configuring ARR

Lab : Sharing content to a Web Farm using a network share

Sharing content to a Web Farm using a network share

Lab : Sharing content to a Web Farm using DFS-R

Install and Configure DFS-R for content replication

Lab : Sharing IIS Configurations in a Web Farm

Configure IIS to use Shared Configurations

Perform a staggered install of a new component for website application support

Describe the increase to reliability and performance using load balancing mechanisms

Install and configure a highly available web farm using ARR

Improve management of web content using DFS-R

Improve the management of the web server and websites using Shared Configurations