

## 70-646 R3: Windows Server 2008 Administration

- **Course Length:** 4 Day

### Course Overview

This course will prepare the student for Exam 70-646: Pro: Windows Server 2008, Server Administrator. Topics covered include planning for server deployment and management, application and data provisioning, business continuity and high availability, and monitoring and maintaining servers.

### Course Outline

<b><u>Course Introduction</u></b>	5m
Course Introduction	
<b><u>Chapter 01 - Preparing for Windows 2008 Installation</u></b>	30m
<b>Lesson: Overview of Windows Server 2008 Deployment</b>	
Business Needs	
Consolidation Benefits with Server 2008	
High Availability	
64-bit Systems Options	
Virtualization Options	
Any Issues With Compatibility	
<b>Lesson: Making a Deployment Plan for Windows 2008 Server</b>	
Document and study the Current Network Environment	
Designing Server Deployments	
Maintenance and Deployment Schedules	
<b>Lesson: Planning Migration</b>	
Creating a Migration Plan	
Using the Upgrade Plan	
What Can Delay Your Windows 2008 Server Installation?	
Chapter 01 Review	
<b><u>Chapter 02 - Configuration Change Plan</u></b>	37m
<b>Lesson: Developing a Change Control Process</b>	
How Does the Change Control Process Work?	
Create a Communication Plan	
Classifying Change Requests	
Approving the Change	
The Emergency Change	
<b>Lesson: Developing Configuration Changes</b>	
Overview of Developing Configuration Changes	
Analyzing the Change	
The Testing Process	
Have a Backup Plan - Rollback	
<b>Lesson: Reviewing Configuration Changes</b>	
Testing the Success of a Change	
Analyzing the Success of a Change	

Documentation Update  
Chapter 02 Review

**Chapter 03 - Preparing for Server 2008 Migration**

1h 3m

**Lesson: Server Migration**

Making a Windows 2008 Server Deployment Plan  
How Virtualization Helps  
Planning for a Rollback  
Migrating Data And Services

**Lesson: How to Plan for the Server Decommissioning Process**

Decommissioning  
Considerations for Decommissioning a Server  
Licensing

**Lesson: Planning an Example of Commissioning a Windows Server 2008 File Server**

Server Deployment Tools  
Planning According to Policy  
Migrating File Servers  
Demo - Installation Part A  
Demo - Installation Part B  
Chapter 03 Review

**Chapter 04A - Server Migration and Planning for Roles**

1 h 9m

**Lesson: Planning for Windows Server 2008 Hardware**

How Windows Server 2008 Uses Process and Memory Resources  
How to Choose either 32-Bit or 64-Bit Hardware  
Guidelines for Combining Server Roles  
Hardware Redundancy

**Lesson: Planning for Windows Server 2008 Core**

Why the Server Core?  
Hardware Requirements for Windows Server 2008 Server Core  
Demo - Role Consolidation  
Demo - File Resource Manager

**Lesson: Combining Windows Server 2008 Server Roles**

What are Server Roles  
Performance Implications of Combining Server Roles  
Recommendations for Combining Servers  
Options for Maintaining High Availability

**Lesson: Planning for Windows Server 2008 File Servers**

File Storage in Windows Server 2008  
Recommendations for File Storage  
High-Availability File Servers  
Clustering Options for File Servers

**Chapter 04B - Server Migration and Planning for Roles**

25m

**Lesson: Understanding Application Server Role Requirements**

What Scenarios Require the Application Server Role  
Preparing for Installation of the Application Server Role  
Supporting Technologies for Applications  
Compatibility

**Lesson: Overview of the Application Server Role Components**

Windows Workflow Foundation  
Windows Presentation Foundation  
Windows Communication Foundation  
**Lesson: Supporting the .NET Framework**  
How the .NET Framework is Used  
.NET Versions  
Chapter 04 Review

### **Chapter 05 - Distributed File System**

42m

**Lesson: What's Required for DFS**  
Needed Services for DFS  
DFS Architecture  
**Lesson: Planning for High Availability in DFS**  
DFS Namespaces  
DFS Replication  
Data Storage  
Comparing Domain and Stand-Alone DFS  
**Lesson: Managing DFS**  
DFS Management Tools  
Delegating DFS Administration  
Demo - DFS  
Chapter 05 Review

### **Chapter 06 - Windows Server 2008 High Availability**

31m

**Lesson: Network Load Balancing**  
Features of Network Load Balancing  
Changes in Network Load Balancing for Windows Server 2008  
Troubleshooting Network Load Balancing  
**Lesson: Understanding Failover Clustering in Windows Server 2008**  
Features of Clustering in Windows Server 2008  
Failover Clustering Enhancements in Windows Server 2008  
Validating a Failover Clustering Solution in Windows Server 2008  
Tools to Manage Failover Clustering in Windows Server 2008  
**Lesson: Creating Clusters in Windows Server 2008**  
Hardware Requirements for Failover Clustering  
Planning Failover Clusters in Windows Server 2008  
Managing Failover Clustering in Windows Server 2008  
Chapter 06 Review

### **Chapter 07 - Monitoring Windows Server**

1h 9m

**Lesson: Setting Up Monitoring**  
Why Should You Monitor  
Monitoring Options  
Planning for Event Monitoring  
**Lesson: Measuring Performance Objects**  
Server Role Metrics  
Key Performance Counters  
**Lesson: Calculating a Server Baseline**  
Key Hardware Components to Monitor  
Common Performance Metrics

Analyzing Performance Trends  
Planning for Future Capacity Requirements

**Lesson: Which Monitoring Tools to Use**

Windows Server 2008 Monitoring Tools  
Reliability and Performance Monitor  
Windows Performance Monitor  
Third-Party Monitoring Tools

**Lesson: Planning Notification Methods**

What is Good for the Business  
How Can I Be Notified?  
When to Escalate  
Demo - WRPM  
Chapter 07 Review

**Chapter 08 - Windows Server Security**

1h 26m

**Lesson: Designing a Multi-Layer Defense**

Multi-Layer Defense Strategy  
What Defense Layers Should Be Considered?

**Lesson: Network-Based Security for Windows Server 2008**

Network Security Terms  
Options for Network Security  
Recommendations for Implementing Windows Server 2008 Server Core  
Demo - Security  
Demo - Server Core Introduction

**Lesson: Host-Based Security for Windows Server 2008**

Assigning Administrative Permissions  
Windows Server 2008 Firewall Configuration  
Security Templates  
Converting Security Configuration Wizard Settings to Security Templates  
Chapter 08 Review

**Chapter 09 - Windows Server Backup and Restore**

1h 30m

**Lesson: Backup Strategies with Windows Server 2008**

Selecting Backup Software and Backup Operators  
Planning Backup in Windows Server 2008  
Backup Scheduling  
Making the Data Retention Plan  
Backing Up Encrypted Files and Virtual Machines  
Factors Affecting Backup Policy  
Storage and Security Considerations  
Process for Selecting Backup Operators  
Demo - Backup

**Lesson: Planning a Server Restore Policy**

Server Restore  
Challenges of a Server Restore  
Backup Plan Options  
Change Management Considerations

**Lesson: Verifying Restored Data**

Restore Logs  
Accessing Data After Restore

Security Analysis  
Updating Backup Policy

**Lesson: Planning an EFS Restore Policy**

Planning for Restoring EFS Data  
Requirements for EFS Recovery  
Chapter 09 Review

**Chapter 10 - Windows Server Maintenance Plan**

51m

**Lesson: Planning for Security Update Management**

WSUS Deployment Considerations  
WSUS Group Policy Settings  
Obtaining Updates  
Server Core Security Updates  
Demo - Management Tasks

**Lesson: Basic Windows Server 2008 Management Tasks**

Windows Server 2008 Management Tasks  
Tasks Most Servers Share  
Frequency of Management Tasks

**Lesson: Automating Windows Server 2008 Maintenance**

Automation Requirements  
Task Automation Tools  
Tool Selection Process  
Chapter 10 Review

**Chapter 11 - Planning for Business Continuity**

42m

**Lesson: Planning for Business Continuity**

Software Failure and the BIA  
How Much of an Impact from Software Failure  
Tracking Service Level Agreements  
Creating Change Management Procedures  
Typical Stages in a Troubleshooting Methodology

**Lesson: Reviewing Core Operating System Components**

Identifying Core Operating System Components  
Identifying Additional Roles and Services  
Server Applications

**Lesson: Reviewing Log Files**

Monitoring Log Files by Using Event Viewer  
Monitoring Application Logs

**Lesson: Evaluating Security Issues**

Troubleshooting Group Policy Security Settings  
Defense-in-Depth Components  
Identifying Faults  
Chapter 11 Review

**Chapter 12 - Windows Server Troubleshooting**

1h 2m

**Lesson: Discovering Hardware Support Issues**

Tools Used for Troubleshooting  
Evaluating Hardware Devices

**Lesson: Handling Device Driver Failures**

Determining Drivers in Use

When to Escalate

Replacing Drivers

**Lesson: Handling Hardware Component Failures**

Documenting Vulnerable Hardware Components

Replacing Devices

**Lesson: Determining the Scale of Network Issues**

Business Impact of Network Failure

Scale of Failure

Service Level Agreements

Change Management Procedures

Interaction with Other Teams

**Lesson: Name Resolution in Windows Server 2008**

Domain Name System

Link-Local Multicast Name Resolution

Legacy Protocols

**Lesson: Fixing IP Connectivity Issues**

Which Versions of IP Are Being Used?

Resolving Logical Addressing Problems

Chapter 12 Review

Course Closure

**Total Duration: 11hrs 43m**