



SharePoint 2016 Administration Combo

Course 20339A 5 Days Instructor-led, Hands on

Course Information

This five-day course will combine the Planning and Administering SharePoint 2016 class with the Advanced Technologies of SharePoint 2016 classes into 5 days. This class will provide you with the knowledge and skills to plan and administer a Microsoft SharePoint 2016 environment. The course teaches you how to deploy, administer, and troubleshoot your SharePoint environment. This course also provides guidelines, best practices, and considerations that help you optimize your SharePoint deployment. Students will also learn high availability, disaster recovery, service application architecture, and Microsoft Business Connectivity Services. This course also focuses on social computing features, productivity, and collaboration platforms and features. Students also will learn about business intelligence solutions, Enterprise Content Management, web content management infrastructure, solutions, and apps.

Due to the number of modules in this course, each offering is customized based on the needs of the attendees for a better focused class.

The course is targeted at experienced IT professionals who are interested in learning how to install, configure, deploy, and manage SharePoint 2016 installations either in a data center or in the cloud.

The lab environment is SharePoint 2016, if you are currently running SharePoint 2013, you will notice little difference between SharePoint 2013 and 2016 from an administrative point of view. The differences are most noticeable in changes to service applications and the upgrade process, which are addressed in lecture. We teach you the proper process for managing the farm, techniques that apply to both versions. We teach you about what's new in SharePoint 2016 as well as what will be removed from SharePoint 2013.

Students typically have more than one year of hands-on experience* with planning and maintaining SharePoint and two years' experience with other core technologies on which SharePoint depends, including Windows Server 2012 R2 or later, Internet Information Services (IIS), Microsoft SQL Server 2014 or later, Active Directory Domain Services (AD DS), and networking infrastructure services.

The minimally qualified candidate typically:

- Is an IT professional who plans, implements, and maintains a multi-server deployment of SharePoint 2016.
- Has a working knowledge of, and preferably hands-on experience, with SharePoint Online.
- Has broad familiarity with SharePoint workloads.

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- Has experience with business continuity management, including data backup, restoration, and high availability.
- Has experience with authentication and security technologies.
- Has experience with Windows PowerShell.
- The hands-on experience or job experience should be from a solutions-based role where the candidate has worked on multiple solutions in the SharePoint space that includes document management, content management, and search.

At Course Completion

After completing this course, students will be able to:

- Describe the key features of SharePoint 2016.
- Design an information architecture for a SharePoint 2016 deployment.
- Design a logical architecture for a SharePoint 2016 deployment.
- Design the physical architecture for a SharePoint 2016 deployment.
- Install and configure SharePoint 2016.
- Create and configure web applications and site collections.
- Plan and configure service applications for a SharePoint 2016 deployment.
- Manage users and permissions, and secure content in a SharePoint 2016 deployment.
- Configure authentication in a SharePoint 2016 deployment.
- Configure platform and farm-level security in a SharePoint 2016 deployment.
- Manage information taxonomy in SharePoint web applications and site collections.
- Configure and manage user profiles and audiences.
- Configure and manage the search experience in SharePoint 2016.
- Monitor, maintain, and troubleshoot a SharePoint 2016 deployment.
- Describe the core SharePoint 2016 architecture and its new and improved features.
- Describe the key hybrid features in SharePoint 2016.
- Plan and design a SharePoint 2016 environment to meet requirements for high availability and disaster recovery.
- Plan and implement Business Connectivity Services and Secure Store Service.
- Configure and manage productivity services for a SharePoint 2016 deployment.
- Manage solutions in a SharePoint 2016 deployment.
- Plan and configure social computing features.
- Plan and configure web content management for an Internet-facing environment.
- Plan and configure Enterprise Content Management in a SharePoint 2016 deployment.
- Plan and configure business intelligence solutions.
- Plan and configure work management, productivity, and collaboration platforms and features.
- Perform an upgrade or migration to SharePoint 2016.

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Prerequisites

Before attending this course, students must have knowledge of:

- Software management in a Windows Server 2012 or Windows Server 2012 R2 enterprise server environment.
- Deploying and managing applications natively, virtually, and in the cloud.
- Administering IIS.
- Configuring AD DS for use in authentication, authorization, and as a user store.
- Managing an application remotely by using Windows PowerShell 4.0.
- Managing databases and server roles in SQL Server.
- Connecting applications to SQL Server.
- Implementing claims-based security.
- Using Microsoft Hyper-V virtual machines.

An ideal candidate for this course must have at least one year of experience with deploying and administering multiple SharePoint 2013 farms across a large enterprise. Because many customers have not upgraded from SharePoint 2010, a candidate can also have at least two years of experience with SharePoint 2010. However, they also must understand the differences between SharePoint 2010 and SharePoint 2013, particularly in terms of hybridization.

Course Outline

Module 1: Introducing SharePoint 2016

This module describes the structure and capabilities of a SharePoint environment, and the major changes for IT professionals in SharePoint 2016. This module also describes the options available for deploying SharePoint 2016.

Lessons

- The key components of a SharePoint deployment
- New features in SharePoint 2016
- SharePoint 2016 deployment options

After completing this module, students will be able to:

- Describe the structure and capabilities of a SharePoint environment.
- Describe the major changes for IT professionals in SharePoint 2016.
- Describe the options available for deploying SharePoint 2016.

Module 2: Designing an information architecture

This module describes how to gather business requirements, and the key elements of a successful information architecture project. This module also explains how to structure information within a SharePoint 2016 deployment and make it easy to find and retrieve.

Lessons

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- Identifying business requirements
- Understanding business requirements for information architecture
- Organizing information in SharePoint 2016
- Planning for discoverability

Lab : Designing an information architecture - Part one

- Identifying site columns, content types, and term sets

Lab : Creating an information architecture - Part two

- Designing keywords, synonyms, promoted results, thesaurus, and managed properties
- Designing a taxonomy

After completing this module, students will be able to:

- Describe how to gather business requirements.
- Describe the key elements of a successful information architecture project.
- Plan how to structure information within a SharePoint 2016 deployment.
- Plan how to make information within a SharePoint 2016 deployment easier to find and retrieve.

Module 3: Designing a logical architecture

This module explains how to approach a logical architecture design and how to document it.

Lessons

- Overview of a SharePoint 2016 logical architecture
- Documenting your logical architecture

Lab : Designing a logical architecture

- Planning a logical architecture
- Producing a logical architecture diagram

After completing this module, students will be able to:

- Explain how to approach a logical architecture design.
- Document a logical architectural design.

Module 4: Designing a physical architecture

This module describes the physical design requirements for SharePoint 2016, and the physical components necessary to fulfill the physical architecture design. It also explains the SharePoint farm topologies, and describes how to map a logical architecture design to a physical architecture design.

Lessons

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- Designing the physical requirements of a SharePoint deployment
- Designing supporting software for the physical components of a SharePoint deployment
- SharePoint farm topologies
- Mapping a logical architecture design to a physical architecture design

Lab : Designing a physical architecture

- Designing a physical architecture
- Developing a physical architecture design diagram

After completing this module, students will be able to:

- Describe the physical design requirements for SharePoint 2016.
- Describe the physical components necessary to fulfil the physical architecture design.
- Identify SharePoint farm topologies.
- Map a logical architecture design to a physical architecture design.

Module 5: Installing and configuring SharePoint 2016

This module explains how to install SharePoint 2016 in different topologies, script the installation, and configure a SharePoint 2016 environment. This module also explains how to configure the core farm-level settings in a SharePoint 2016 deployment.

Lessons

- Installing SharePoint 2016
- Scripting the installation and configuring a SharePoint 2016 environment
- Configuring SharePoint 2016 farm settings

Lab : Provisioning SharePoint 2016

- Provisioning a SharePoint 2016 server farm

Lab : Configuring SharePoint 2016

- Configuring incoming email
- Configuring outgoing email
- Configuring integration with Microsoft Office Web Apps Server 2016

After completing this module, students will be able to:

- Install SharePoint 2016 in different topologies.
- Script the installation and configure a SharePoint 2016 environment.
- Configure the core farm-level settings in a SharePoint 2016 deployment.

Module 6: Creating web applications and site collections

This module explains how to create web applications in SharePoint 2016 and how to configure these applications. It also explains how to create and configure site collections in SharePoint 2016 and SharePoint Online.

Lessons

- Creating web applications
- Configuring web applications
- Creating and configuring site collections

Lab : Creating and configuring web applications

- Creating a web application
- Configuring a web application

Lab : Creating and configuring site collections

- Creating and configuring site collections
- Creating a site collection in a new content database
- Using Fast Site Collection Creation

After completing this module, students will be able to:

- Create web applications in SharePoint 2016.
- Configure web applications in SharePoint 2016.
- Create and configure site collections in SharePoint 2016 and SharePoint Online.

Module 7: Planning and configuring service applications

This module describes the service application architecture in SharePoint 2016, and how to provision and manage service applications.

Lessons

- Introduction to the service application architecture
- Creating and configuring service applications

Lab : Configuring services and service applications

- Provisioning a managed metadata service application with Central Administration
- Provisioning a managed metadata service application with Windows PowerShell
- Configuring service applications for document conversions
- Configuring service application proxy groups

After completing this module, students will be able to:

- Describe the service application architecture in SharePoint 2016.
- Provision and manage service applications.

Module 8: Managing users, permissions, and securing content

This module explains how to configure authorization in SharePoint 2016. It also explains how to configure site collection security in SharePoint 2016.

Lessons

- Configuring authorization in SharePoint 2016
- Managing access to content

Lab : Managing users and groups

- Creating a web application policy
- Creating and managing SharePoint groups
- Creating custom permission levels

Lab : Securing content in SharePoint 2016

- Managing permissions and inheritance
- Managing site collection security
- Enabling anonymous access to a site

After completing this module, students will be able to:

- Configure authorization in SharePoint 2016.
- Configure site collection security in SharePoint 2016.

Module 9: Configuring authentication for SharePoint 2016

This module explains about the SharePoint 2016 authentication infrastructure, and how to configure claims, providers, and identity federation for SharePoint 2016. It also explains how to configure server-to-server authentication for SharePoint 2016.

Lessons

- Overview of authentication
- Configuring federated authentication
- Configuring server-to-server authentication

Lab : Configuring SharePoint 2016 to use federated identities

- Configuring Active Directory Federation Services (AD FS) to make a web application a relying party
- Configuring SharePoint to trust AD FS as an identity provider
- Configuring a web application to use the AD FS identity provider

After completing this module, students will be able to:

- Explain the authentication infrastructure of SharePoint 2016.
- Configure claims providers and identity federation for SharePoint 2016.

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- Configure server-to-server authentication for SharePoint 2016.

Module 10: Securing a SharePoint 2016 deployment

This module explains how to secure a SharePoint 2016 deployment at the platform level, and how to configure farm-level security settings for a SharePoint 2016 deployment.

Lessons

- Securing the platform
- Configuring farm-level security

Lab : Configuring SharePoint 2016 communication security

- Configuring SharePoint and Microsoft SQL Server to communicate over nonstandard ports
- Hardening a SharePoint server farm

Lab : Configuring farm-level security

- Configuring blocked file types
- Configuring web part security
- Implementing security auditing

After completing this module, students will be able to:

- Secure a SharePoint 2016 deployment at the platform level.
- Configure farm-level security settings for a SharePoint 2016 deployment.

Module 11: Managing taxonomy

This module explains how to create and manage content types and content-type propagation. Additionally, it explains how to implement managed metadata in SharePoint web applications and site collections. It also explains how to configure the managed metadata service application in SharePoint 2016

Lessons

- Managing content types
- Understanding managed metadata
- Configuring the managed metadata service

Lab : Configuring content-type propagation

- Creating content types for propagation
- Publishing content types across site collections

Lab : Configuring and using the managed metadata service

- Configuring the managed metadata service
- Creating term sets and terms

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- Consuming term sets

After completing this module, students will be able to:

- Create and manage content types and content-type propagation.
- Explain how to implement managed metadata in SharePoint web applications and site collections.
- Configure the managed metadata service application in SharePoint 2016.

Module 12: Configuring user profiles

This module explains how to configure the User Profile service application, and how to manage user profiles and audiences.

Lessons

- Configuring the User Profile service application
- Managing user profiles and audiences

Lab : Configuring user profiles

- Configuring the User Profile service application
- Configuring directory import and synchronization

Lab : Configuring and managing user profiles

- Provisioning My Sites
- Configuring audiences

After completing this module, students will be able to:

- Configure the User Profile service application.
- Manage user profiles and audiences.

Module 13: Configuring Enterprise Search

This module describes the Search service architecture, and explains how to configure the Search service in SharePoint 2016. It also explains how to manage the search experience in SharePoint 2016.

Lessons

- Understanding the Search service architecture
- Configuring the Search service
- Managing Enterprise Search

Lab : Configuring Enterprise Search

- Configuring the Search service application
- Configuring a file share content source
- Configuring a local SharePoint content source

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- Creating a Search Center

Lab : Optimizing the search experience

- Configuring a result source and a query rule
- Customizing the search experience
- Creating and deploying a thesaurus
- Configuring entity extractors and refiners
- Managing query spelling correction

After completing this module, students will be able to:

- Describe the Search service architecture in SharePoint 2016.
- Configure the Search service in SharePoint 2016.
- Manage the search experience in SharePoint 2016.

Module 14: Monitoring and maintaining a SharePoint 2016 environment

This module explains how to implement a monitoring plan for SharePoint 2016, and how to optimize the performance of a SharePoint 2016 deployment. It also explains how to plan for and configure SharePoint caching. Further, it explains how to identify and resolve problems in a SharePoint 2016 environment.

Lessons

- Monitoring a SharePoint environment
- Tuning and optimizing a SharePoint environment
- Planning and configuring caching
- Troubleshooting a SharePoint environment

Lab : Monitoring a SharePoint 2016 deployment

- Configuring usage and health data
- Configuring diagnostic logging
- Configuring health analyzer rules
- Reviewing usage and health data

Lab : Investigating page load times

- Analyzing network traffic
- Analyzing SharePoint page performance

After completing this module, students will be able to:

- Implement a monitoring plan for SharePoint 2016.
- Optimize the performance of a SharePoint 2016 deployment.
- Identify how to plan for and configure SharePoint caching.
- Identify and resolve problems in a SharePoint 2016 environment.

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Module 15: Introduction to hybrid scenarios for SharePoint 2016

This module describes the key hybrid features in SharePoint 2016, and the various hybrid options available in SharePoint 2016. This module helps you understand how to configure a solution that uses an outbound search topology.

Lessons

- Exploring the hybrid features in SharePoint 2016
- Hybrid architectures in SharePoint 2016
- Configuring a one-way hybrid search, and configuring OneDrive for Business

Lab : Configuring a Microsoft Office 365 tenant

- Configuring an Office 365 tenant

Lab : Configuring one-way hybrid search and configuring OneDrive for Business

- Configuring an outbound search topology

After completing this module, students will be able to:

- Describe the key hybrid features in SharePoint 2016.
- Describe the various hybrid options available in SharePoint 2016.
- Configure a solution that uses an outbound search topology.

Module 16: Planning and designing for business continuity management

This module explains how to select an appropriate database server configuration to meet availability requirements. It also describes how to design a physical architecture and infrastructure to meet high-availability requirements. Finally, this module explains how to develop and implement a backup and restore strategy.

Lessons

- Designing database topologies for high availability and disaster recovery
- Designing a SharePoint 2016 infrastructure for high availability
- Planning for disaster recovery

Lab : Planning for high availability

- Planning a Microsoft SQL Server topology & designing SharePoint infrastructure for high availability
- Developing a high-availability physical architecture design diagram

Lab : Designing a backup and restore plan, and performing a backup and a restore

- Creating a backup and restore plan
- Testing the backup and recovery process

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After completing this module, students will be able to:

- Select an appropriate database server configuration to meet availability requirements.
- Design a physical architecture and infrastructure to meet high-availability requirements.
- Develop and implement a backup and restore strategy.

Module 17: Planning and implementing Business Connectivity Services and Secure Store Service

This module explains how to configure Business Connectivity Services (BCS), and describes how to configure and manage the Secure Store Service application. It also explains how you can configure and manage BCS models.

Lessons

- Configuring BCS
- Configuring the Secure Store Service
- Managing BCS models

Lab : Configuring Business Connectivity Services and the Secure Store Service

- Configuring the Business Data Connectivity service application
- Configuring the Secure Store Service

Lab : Managing Business Data Connectivity models

- Importing and configuring Business Data Connectivity (BDC) models
- Configuring a Secure Store Service target application
- Creating profile pages for BDC models

After completing this module, students will be able to:

- Configure Business Connectivity Services.
- Configure and manage the Secure Store Service application.
- Configure and manage BCS models.

Module 18: Configuring productivity services for a SharePoint 2016 deployment

This module describes SharePoint apps and the supporting SharePoint infrastructure. This module also explains how to provision and configure SharePoint apps and app catalogs, and how to manage app usage within a SharePoint 2016 deployment. Additionally, this module describes how to provision Microsoft Access Services, Visio Services, Word Automation Services, PowerPoint Automation Services, and SharePoint Translation Services.

Lessons

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- Understanding the SharePoint app architecture
- Provisioning and configuring apps and app catalogs
- Managing apps
- Provisioning productivity services

Lab : Configuring and managing SharePoint apps and app catalogs

- Configuring a SharePoint farm to support apps
- Creating and configuring a corporate catalog
- Deploying and monitoring apps

After completing this module, students will be able to:

- Describe SharePoint apps and the supporting SharePoint infrastructure.
- Provision and configure SharePoint apps and app catalogs
- Manage how apps are used within a SharePoint 2016 deployment.
- Describe how to provision Microsoft Access Services, Visio Services, Word Automation Services, PowerPoint Conversion Services, and SharePoint Translation Services.

Module 19: Managing solutions in a SharePoint 2016 deployment

This module describes the purpose and structure of SharePoint features and solutions. In addition, it explains how to manage farm solutions in a SharePoint 2016 deployment, and how to manage sandbox solutions in a SharePoint 2016 deployment.

Lessons

- Understanding the SharePoint solution architecture
- Managing farm solutions
- Managing sandboxed solutions

Lab : Managing SharePoint 2016 solutions

- Configuring sandboxed solution management at the farm level
- Configuring sandboxed solution management at the site collection level
- Deploying farm solutions

After completing this module, students will be able to:

- Describe the purpose and structure of SharePoint features and solutions.
- Manage farm solutions in a SharePoint 2016 deployment.
- Manage sandboxed solutions in a SharePoint 2016 deployment.

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Module 20: Connecting people

This module explains how to implement user profiles and configure synchronization for a SharePoint 2016 deployment, and how to plan and configure My Site and social features. This module also describes how to configure community sites.

Lessons

- Planning user profiles
- Enabling My Sites and social features
- Building communities

Lab : Configuring profile synchronization and My Sites

- Configuring user profile synchronization by using Microsoft Identity Manager 2016
- Configuring user profile policies
- Configuring My Sites

Lab : Configuring community sites

- Creating a community site infrastructure
- Configuring community site participation

After completing this module, students will be able to:

- Implement user profiles and configure synchronization for a SharePoint 2016 deployment.
- Plan and configure My Sites and social features.
- Configure community sites

Module 21: Planning and configuring web content management

This module explains how to plan and configure a web content management infrastructure to meet business requirements. This module also describes how to configure managed navigation and product catalog sites, and how to configure support for multilingual sites. Additionally, it explains and how to plan and manage design and customization for publishing sites, and how to plan and configure support for mobile users.

Lessons

- Planning and implementing a web content management infrastructure
- Configuring managed navigation and catalog sites
- Supporting multiple languages and locales
- Planning and managing design and customization
- Supporting mobile users

Lab : Configuring managed navigation and catalog sites

- Configuring a catalog site

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- Configuring a publishing site to use catalog content

Lab : Configuring device channels

- Configuring device channels

After completing this module, students will be able to:

- Plan and configure a web content management infrastructure to meet business requirements.
- Configure managed navigation and product catalog sites.
- Configure support for multilingual sites.
- Plan and manage design and customization for publishing sites.
- Plan and configure support for mobile users.

Module 22: Planning and configuring Enterprise Content Management

This module explains how to plan for management of content and documents, and how to plan for and configure eDiscovery. Additionally, it describes how to plan for records management and compliance.

Lessons

- Planning content management
- Planning and configuring eDiscovery
- Planning records management

Lab : Configuring eDiscovery in SharePoint 2016

- Creating an eDiscovery center
- Creating and managing eDiscovery cases
- Configuring in-place preservation

Lab : Configuring records management in SharePoint 2016

- Creating site-based retention policies

After completing this module, students will be able to:

- Plan how to manage content and documents.
- Plan and configure eDiscovery.
- Plan records management and compliance

Module 23: Planning and configuring business intelligence solutions

This module explains how to plan a business intelligence (BI) architecture for a SharePoint 2016 deployment, and how to deploy and manage BI services.

Lessons

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- Planning a business intelligence architecture
- Deploying and managing business intelligence services

Lab : Configuring PowerPivot for SharePoint 2016

- Installing and configuring the PowerPivot add-in
- Verifying the PowerPivot for SharePoint functionality

After completing this module, students will be able to:

- Plan a BI architecture for a SharePoint 2016 deployment.
- Deploy and manage BI services.

Module 24: Planning and configuring work management and productivity

This module explains how to configure connections to enterprise server platforms, and how to plan and configure productivity and collaboration features. This module also explains how to plan and configure composite solutions in SharePoint 2016.

Lessons

- Aggregating tasks with the Work Management Service
- Planning and configuring collaboration features
- Planning and configuring composites

Lab : Configuring project sites

- Creating project sites
- Configuring project sites
- Engaging project teams
- Configuring Project Server integration

Lab : Configuring a workflow

- Configure Microsoft Azure Workflow and Microsoft SharePoint Workflow Services
- Creating and testing a workflow

After completing this module, students will be able to:

- Configure connections to enterprise server platforms.
- Plan and configure productivity and collaboration features.
- Plan and configure composite solutions in SharePoint 2016.

Module 25: Upgrading and migrating to SharePoint 2016

This module explains how to plan an upgrade or migration to SharePoint 2016. In addition, it explains how to manage site collections and how to upgrade them to SharePoint 2016. Finally, the module describes how to upgrade advanced content from SharePoint Server 2013 to SharePoint 2016.

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Lessons

- Preparing for an upgrade or migration
- Planning an upgrade process
- Planning and managing a site collection upgrade
- Upgrading for advanced scenarios

Lab : Performing a content database migration and upgrade from Microsoft SharePoint Server 2013

- Migrating a content database from SharePoint Server 2013 to SharePoint 2016

Lab : Managing site collection upgrades

- Preparing site collections for upgrade
- Upgrading site collections
- Reviewing farm-level site collection upgrade settings
- Migrating a content database from SharePoint Server 2013 to SharePoint 2016

After completing this module, students will be able to:

- Prepare for an upgrade or migration to SharePoint 2016.
- Plan an upgrade or migration process.
- Manage how site collections are upgraded to SharePoint 2016.
- Upgrade advanced content from SharePoint Server 2013 to SharePoint 2016.