

# Wprowadzenie do zarządzania Windows Server 2019

Authorial training. The training is addressed to:

- **Administrator**
- **IT administrator**
- **IT specialist**
- **HelpDesk**



## Purpose of the training

The training is addressed to people with the following job positions in the organisation:

- Administrator,
- IT administrator
- IT specialist
- HelpDesk

The aim of the course:

- Acquaintance with managing Windows Server 2019 fundamentals.

The training is addressed to:

- People who worked with previous versions of Windows Server or would like to start administering Windows Server 2019 now.
- Administrators who would like to implement Windows Server 2019/2022 in their own infrastructure.
- IT administrators who would like to know benefits of novelties in Windows Server 2019.
- IT department employees responsible for managing Active Directory infrastructure and Microsoft Windows 2019 servers.



## Benefits of completing the training

- Gaining knowledge and practical skills from Windows Server 2019 services, including Windows Server Core, as well as managing with Server Manager console and Windows Admin Center.
- Gaining knowledge and practical skills from Active Directory management.
- Gaining knowledge and practical skills from managing network infrastructure related to Active Directory, as well as DNS, DHCP, WSUS, WDS servers and file servers.
- Acquaintance with mechanism of securing Windows Server systems against failure and rebuilding the elements of infrastructure after such events.
- Acquaintance with fundamentals of managing virtual machines and related infrastructure with Hyper-V.
- Gaining fundamental knowledge from task automation with PowerShell.

The training in cross-cutting manner discusses fundamental roles and functions of Windows Server 2019 used in most organisations. The training prepares for standalone administering Active Directory infrastructure and related network infrastructure, as well as providing continuity of operation and system monitoring.



## Expected Listener Preparation

Basic technical knowledge related to Client, server and network systems (Windows, Linux). Perfect navigation of IT system interfaces in English version.

To make your work more convenient and training more effective, we suggest using an additional screen. Lack of such screen does not exclude participation in the training, however it significantly influences working comfort during classes.

You can find information and requirements of participation in Distance Learning trainings at:

<https://www.altkomakademia.pl/distance-learning/#FAQ>



## Training Language

- **Training:** English
- **Materials:** English



## Training Includes

- electronic materials available at: <https://www.altkomakademia.pl/>
- access to Altkom Akademia student portal

Training method:

- Lecture
- Demonstration
- Laboratory
- 50% theory
- 50% practice



## Duration

5 days / 35 hours

## Training agenda

### 1. Introduction to Windows Server 2019

- Hardware requirements
- System versions
- System installation
- Post-installation tasks
- System roles and functions
- Functions on demand in the „Core” version of the system

### 2. Managing Windows Server 2019

- Managing with mmc console
- Managing with Desktop
- Managing with Server Manager
- Managing with Windows Admin Center
- Managing with PowerShell

### 3. Introduction to Active Directory

- Basic concepts related to Active Directory
- Active Directory infrastructure
- Domain controllers
- Installing Active Directory

- Basic administration tools for Active Directory
  - Organisational units in the domain
  - Active Directory users and groups
  - Active Directory computers
4. Introduction to Group Policy Objects (GPO)
- What is GPO
  - Central Store and administration templates
  - Preferences
  - Password policy
  - Inspection
  - Managing user settings
5. Introduction to network services
- Overview of IPv4 settings.
  - Defining subnet.
  - Public, private addresses, and APIPA.
  - Configuring IPv4 host.
  - Overview of IPv6
6. Domain Name System (DNS)
- Introduction to DNS
  - Configuring zones
  - Transferring zone and replication
  - Cache
  - Integrating AD DS and DNS
  - Configuring DNS
  - Monitoring and registering DNS events
  - Solving DNS labels
7. Dynamic Host Configuration Protocol (DHCP)
- Introduction to DHCP
  - Installing and configuring DHCP server
  - DHCP Failover
  - Monitoring
8. Windows Deployment Services (WDS)
- Windows Deployment Service
  - Managing images
  - Deploying systems with Windows Deployment Services
  - Administering Windows Deployment Services
9. Windows Server Update Services (WSUS)
- Introduction to WSUS
  - Prerequisites
  - Installing and configuring WSUS

- Group policies for WSUS server

## 10. Managing file system and storage

- Managing disks and volumes
- Deploying Storage Spaces
- Data deduplication
- Shared folders
- Access control lists
- File Server Resource Manager

## 11. Monitoring server's activity

- Monitoring tools
- The use of Performance Monitor
- Monitoring Event Logs

## 12. Disaster Recovery

- Active Directory basket
- Shadow Copy
- Windows Server Backup

## 13. Introduction to operational system virtualization (Hyper-V)

- Overview of Hyper-V function
- Installing Hyper-V
- Configuring warehouse on Hyper-V host servers
- Configuring network on Hyper-V host servers
- Configuring Hyper-V virtual machines
- Virtual machine management