

Operating System Course

Duration: 5 Days

Course Outline

Day 1: Fundamentals of Windows Operating Systems

Module 1: Windows Endpoint Configuration

- System architecture and kernel basics
- Windows registry structure and optimization
- Performance tuning and security enhancements

Module 2: PowerShell and CMD

- Basics of scripting and automation
- Practical administrative tasks using PowerShell/CMD

Day 2: Server Administration and Active Directory

Module 3: Windows Server Administration

- Deployment and configuration of Windows Server
- Security best practices for server environments

Module 4: Active Directory Management

- User accounts and group policies
- Authentication and access control strategies

Day 3: Networking and Endpoint Orchestration

Module 5: Networking Essentials

- Configuration of switches, routers, and firewalls
- Networking security and optimization

Module 6: Endpoint Orchestration

- Introduction to orchestration tools (Trellix EPO or similar)
- Automating endpoint management and deployment

Day 4: Security, Diagnostics, and Virtualization

Module 7: SIEM Solutions

- Implementing Splunk for security monitoring
- Vulnerability detection and configuration management

Module 8: Applied Diagnostics and Troubleshooting

- Analysing Windows and network logs for incident response
- Real-world troubleshooting scenarios

Module 9: Virtualization

- Deployment and management of virtual environments (Hyper-V/VMware)
- Enhancing infrastructure flexibility

Day 5: Data Management and Industry Applications

Module 10: Backup and Restoration Systems

- Implementing reliable backup strategies
- Data recovery in failure scenarios

Module 11: OT-Specific Systems

- Configuring and managing OSIsoft PI System
- Real-time data analysis and decision-making for industrial applications

Module 12: Data Diodes

- Secure one-way and two-way data transmission
- High-security use cases and implementation strategies