

Microsoft 365 - PowerShell, Advanced Automation, and SharePoint Migration

Course code: GOC223

A hands-on five-day course on advanced SharePoint Online automation and migration — PowerShell, Microsoft Graph, and PnP in depth, two large hands-on labs (fileshare migration, provisioning), governance, Azure integration, and automation identity security, capped off with a capstone blueprint. This course takes migration and automation engineers through the full cycle of advanced SharePoint Online automation and migration. The week opens with the tooling strategy decision (PowerShell, Microsoft Graph, PnP, REST) and secure automation identity, followed by PowerShell in depth across three production-grade modules, four authentication modes, and the first large lab (certificate, app-only sign-in, scripted work sites). Day two deepens engineering skills on Microsoft Graph (batching, delta query, throttling) and the DEV/TEST/PROD staging environment model with drift detection. Day three covers the course's two pillars — migration composition (wave planning, cutover tactics, the second large lab: file share to SharePoint Online driven by a JSON plan) and provisioning automation via the PnP provisioning engine, rounded out with lifecycle and compliance enforcement. Day four connects SharePoint with Azure integration patterns (Logic Apps, Functions, Runbooks, Graph change notifications), a SIEM pipeline via Azure Blob, and a Microsoft Clarity rollout. The final day builds SPFx and App Catalog fundamentals, works through security hardening for automation identities, and closes with a capstone blueprint tying migration, provisioning, and Azure integration into a single end-to-end plan with a rollback plan and an operational handoff.

Who is this course for?

Migration and automation engineers

Advanced SharePoint Online / Microsoft 365 administrators

DevOps / governance platform engineers

Consultants designing scalable provisioning and migration frameworks

Assumed entry knowledge

Knowledge within the scope of the courses listed in the **Previous courses** and **Related courses** sections>

PowerShell basics

Experience with SharePoint Online administration

Azure basics (resource groups, identities)

Knowledge of JSON & REST is an advantage

Experience with ShareGate or migration tools is an advantage

Course outline

Onboarding, environment and automation strategy

Onboarding & work rules — entry into a shared training tenant, MFA registration and rules for secure collaboration of multiple administrators in one environment.

Engineering environment, VS Code and Copilot — VS Code as a working tool for automation, Git repository hygiene and responsible use of GitHub Copilot.

Automation strategy & tool map — orientation between PowerShell, Microsoft Graph, PnP and REST, automation identity design (app registration) and the principle of least privilege.

> Optional according to group time: Architectural overview of Azure, Entra ID, M365, Microsoft Graph and SPO REST.

PowerShell, Graph engineering & staging

GOPAS Praha

Na Strži 2097/63
140 00 Praha 4 - Krč
Tel.: +420 226 201 390
info@gopas.cz

GOPAS Brno

Nové sady 996/25
602 00 Brno
Tel.: +420 530 513 590
info@gopas.cz

GOPAS Bratislava

Dr. Vladimíra Clementisa 10
Bratislava, 821 02
Tel.: +421 902 903 132
info@gopas.sk



Copyright © 2026 GOPAS, a.s.,
All rights reserved

Microsoft 365 - PowerShell, Advanced Automation, and SharePoint Migration

PowerShell in depth (Lab 1) — three PowerShell modules (PnP, Graph, SPO) and four authentication modes; lab: certificate, app-only login, scripted creation of work sites.

Microsoft Graph — engineering basics — batching, delta query, throttling and error classification for resilient automation scripts.

Staging environments: DEV, TEST, PROD — baseline as a declarative artifact and detection of drift between environments.

Migration, provisioning & lifecycle

Migration composition (Lab 2) — pre-migration checks, wave planning, cutover tactics; lab: migration from fileshare to SharePoint Online according to JSON plan.

Provisioning automation patterns — PnP provisioning engine, tenant templates and parameterization of requests for websites.

Lifecycle & compliance enforcement — retention and sensitivity automation, sharing governance, Site Attestation.

> Optional according to group time: Orchestration integration and custom scripts (license-free simulation, design of governance hooks against PnP/Graph interface).

Azure integration, SIEM & Clarity

Azure integration patterns (Lab 3) — Logic Apps vs Functions vs Runbooks, subscription lifecycle Graph change notifications; lab: batch sync as a scheduled task under application identity.

SIEM integration via Azure Blob — application logging pipeline > Blob > Event Grid > Function > SIEM, KQL basics for validation and dashboards.

Microsoft Clarity — configuration — tenant-wide deployment via SPFx Application Customizer, cookie/consent compliance.

SPFx, security hardening & capstone

SPFx basics & App Catalog — dev setup, HelloWorld webpart generation, App Catalog (tenant vs site) and solution deployment.

Security hardening & least privilege — privilege minimization, Conditional Access for service principals, certificate rotation.

Performance, cost & capstone — API efficiency, cost logging and asynchronous fan-out patterns; final blueprint connecting migration, provisioning and Azure integration with rollback plan.

GOPAS Praha
Na Strži 2097/63
140 00 Praha 4 - Krč
Tel.: +420 226 201 390
info@gopas.cz

GOPAS Brno
Nové sady 996/25
602 00 Brno
Tel.: +420 530 513 590
info@gopas.cz

GOPAS Bratislava
Dr. Vladimíra Clementisa 10
Bratislava, 821 02
Tel.: +421 902 903 132
info@gopas.sk



Copyright © 2026 GOPAS, a.s.,
All rights reserved