



NEXTGEN CAMPUS
TOWARDS THE NEXT GENERATION OF IT

STUDENT HANDBOOK

Certificate in AI-Driven Network Engineering and Security

Your guide to the course — general information, how your weeks and months work, how the course ends, and every module in detail

6

MONTHS

496

LEARNING HOURS

16

MODULES

Blended

DELIVERY

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PART A General Information

1 Welcome to NextGen Campus

Welcome to the Certificate in AI-Driven Network Engineering and Security. This handbook is your guide to the course: how it is organised, how you will learn and be assessed, what is expected of you, and what every module covers. Please read it carefully and keep it with you throughout the course.

NextGen Campus has trained IT professionals since 2013. Our programmes are directly job-targeted: every module combines instructor-led teaching with hands-on labs, real industry tools and practical use of AI, so that you finish ready for work.

2 Course at a Glance

Course	Certificate in AI-Driven Network Engineering and Security
Duration	Six months (26 weeks; 24 teaching weeks) · 6 months
Delivery	Blended (online and on campus)
Class days and times	Saturday 1.30 – 5.30 PM — online lecture Friday 2.00 – 6.00 PM — campus lab, Room A, once every 4 weeks Saturday 8.30 AM – 12.30 PM — campus lab group session, Room B
Total learning hours	496 hours — 96 h lectures · 340 h practical (labs and capstone) · 60 h Student Project Book
Medium	English
Intakes	January–February and June–July each year
Course fee	Rs. 45,000.00
On completion	NextGen Campus Certificate and Academic Transcript
Training institute	NextGen Campus (Pvt) Ltd — TVEC Registered Training Institute P01/1159
Course status	Proposed for TVEC course registration

3 About the Course

The Certificate in AI-Driven Network Engineering and Security is a six-month, 496-hour non-NVQ course of 16 taught modules and a final project and examination (M17), progressing learners from IT Support Technician to Junior Network and Systems Engineer level.

Purpose To train job-ready network and systems engineers who can support users, build and secure enterprise networks and Windows Server infrastructure, run enterprise services, manage endpoints, extend into Azure and Microsoft 365, and use AI responsibly in everyday engineering.

Job-level progression IT Support Technician (weeks 1–5) → Junior Systems Administrator (weeks 6–12) → Systems and Network Administrator (weeks 13–18) → Network and Systems Engineer trainee (weeks 19–22) → AI-enabled Junior Network and Systems Engineer (weeks 23–24 onward).

Structure 16 taught modules plus Module 17, Final Project and Examination. Email administration and security are taught through Exchange Online in M11, and the course closes with two weeks on AI for network and systems engineers.

4 What You Will Be Able to Do

By the end of the course you will be able to:

- Provide professional IT support: hardware, operating systems, troubleshooting and small networks.
- Plan, build, secure and monitor enterprise networks, including Cisco routers and switches.

- Deploy and administer Windows Server 2022/2025 infrastructure, virtualisation and domain migration.
- Run enterprise services: SQL Server and centrally managed endpoints, and administer email security in Exchange Online.
- Secure networks with firewalls, web proxies, VPNs, IDS/IPS and authorised security testing.
- Manage Azure and Microsoft 365 infrastructure and plan business continuity and disaster recovery.
- Apply SLAs, project management and professional career skills.
- Use AI confidently and responsibly for monitoring, log analysis, troubleshooting, PowerShell automation and documentation.
- Complete, document and present a final enterprise project and pass the final examination.

5 Who the Course Is For and What You Need

Entry requirements Learners need G.C.E. O/L with passes in Mathematics and English, plus basic computer literacy. No prior networking experience is required.

Who it is for school leavers, IT support staff, technicians, working professionals and career changers aiming for network and systems roles.

What you need a laptop or computer with reliable internet for LMS labs (campus lab available by arrangement); signed ethical conduct agreement before security labs.

6 How You Will Learn

Learning activity	Hours	What it involves
Lectures	96 h	Live online lectures with your trainer (4 h a week)
Campus lab practicals	33 h	Hands-on sessions in the campus lab (Room A / Room B), on a rotating schedule
LMS module labs	267 h	Hands-on labs for every module on the NextGen LMS — about 11.3 h a week, done in your own time and monitored by your trainer
Capstone project	40 h	Final project built on campus over dedicated capstone days
Student Project Book	60 h	Your professional record of lab work, reflections and the Management Module
Total	496 h	

About the LMS module labs

Every module has a set of hands-on labs on the NextGen LMS. Complete them each week, between your classes — they are where most of your practical skills are built.

Your trainer monitors lab completion on the LMS and uses it to give you feedback before each module assessment.

Completing all LMS labs is required for the award.

Use a laptop or computer with reliable internet. If you do not have one, ask about using the campus lab.

7 Your Weekly Timetable

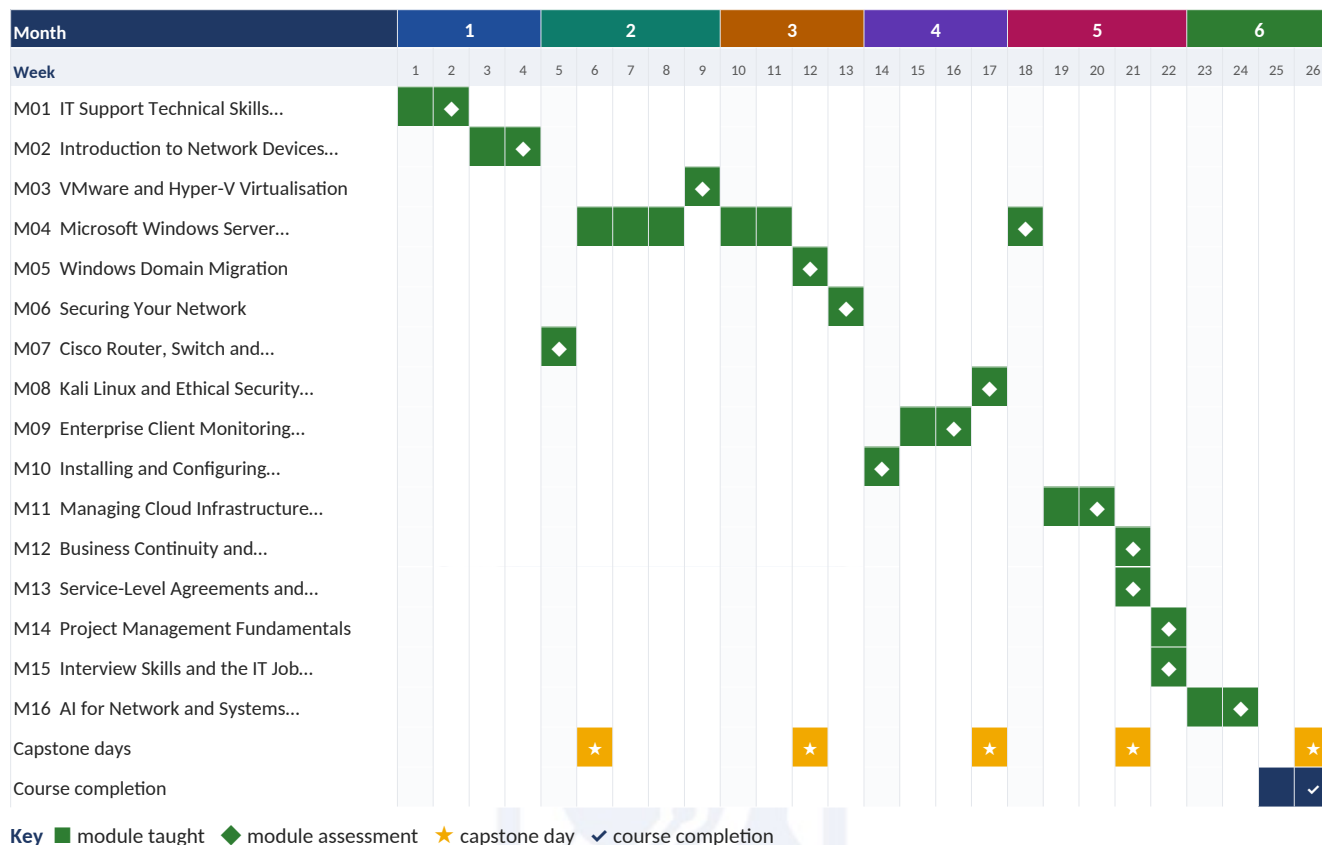
Days	Time	Where	Session
Saturday	1.30 – 5.30 PM	Online	Online live lecture
Friday	2.00 – 6.00 PM	Room A	Campus lab practical (your batch attends once every 4 weeks)
Saturday	8.30 AM – 12.30 PM	Room B	Campus lab practical in groups of 20 (your group is notified in advance)

Rotating campus lab dates for your batch are published on the LMS at the start of each month.

Room A and Room B are at the NextGen Campus Head Office, Nugegoda. Regular classes do not run on poya days or public holidays, which are used for capstone days.

8 Your Course Journey

The course runs for 26 weeks over 6 months. The chart shows when each module is taught, when you sit each module assessment (◆), and when the capstone days take place.



Month by month

Month	Weeks	What you study	Milestones
Month 1	Weeks 1–4	M01 IT Support Technical Skills Bootcamp M02 Introduction to Network Devices and Servers	◆ Module assessment: M01, M02
Month 2	Weeks 5–9	M03 VMware and Hyper-V Virtualisation M04 Microsoft Windows Server Installation and Administration M07 Cisco Router, Switch and Security Configuration	◆ Module assessment: M03, M07 ★ Capstone day (week 6)
Month 3	Weeks 10–13	M04 Microsoft Windows Server Installation and Administration M05 Windows Domain Migration M06 Securing Your Network	◆ Module assessment: M05, M06 ★ Capstone day (week 12)
Month 4	Weeks 14–17	M08 Kali Linux and Ethical Security Testing M09 Enterprise Client Monitoring Systems M10 Installing and Configuring Microsoft SQL Server	◆ Module assessment: M08, M09, M10 ★ Capstone day (week 17)
Month 5	Weeks 18–22	M04 Microsoft Windows Server Installation and Administration M11 Managing Cloud Infrastructure with Microsoft Azure and Microsoft 365 M12 Business Continuity and Disaster Recovery M13 Service-Level Agreements and Agreement Scopes M14 Project Management Fundamentals M15 Interview Skills and the IT Job Market	◆ Module assessment: M04, M11, M12, M13, M14, M15 ★ Capstone day (week 21)

Month	Weeks	What you study	Milestones
Month 6	Weeks 23-26	M16 AI for Network and Systems Engineers	◆ Module assessment: M16 ★ Capstone day (week 26) Week 25: Exam Week: Final Examination and Final Practical Week 26: Final Project Panel Presentation and Course Completion ✓ Project Book submitted; course completion



A typical week

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
LMS labs ≈ 2 h	LMS labs ≈ 2 h	LMS labs ≈ 2 h	LMS labs ≈ 2 h	Campus lab 2.00 – 6.00 PM <i>when your batch is rostered</i> LMS labs ≈ 2 h	Online lecture 1.30 – 5.30 PM <i>online</i> Campus lab 8.30 AM – 12.30 PM <i>when your batch is rostered</i>	LMS labs ≈ 2 h
Student Project Book about 2.5 h a week: update it after each class and lab with your evidence and reflections.						

LMS lab hours are a guide — about 11.3 h a week in total; you can arrange them across the week to suit you.

How the course ends

1 Week 24	2 Week 25	3 Week 26	4 End of course	5 After the course	6 Award
Final module M16 AI for Network and Systems Engineers and the final module assessment	Completion week Exam Week: Final Examination and Final Practical	Capstone day Final Project Panel Presentation and Course Completion	Project Book Submit your completed Student Project Book, including the Management Module	Results Marks are confirmed and your final grade is published: Distinction, Merit or Pass	Certificate NextGen Campus Certificate and Academic Transcript issued

If you need a re-sit A learner who fails a module MCQ may re-sit it once within one month. A learner who fails the capstone panel defence may re-present once within three months.

9 Assessment and Grading

Component	How you are assessed	Weight	When
Continuous assessment	Module MCQs; Student Progress Exams 1 and 2	40%	End of each module; weeks 8 and 11
Final examination	Theory paper and final practical examination	20%	Week 25 (exam week)
Final project	Enterprise project with panel presentation and technical defence (M17)	20%	Poya Day 5 (week 26)
Student Project Book	Project book submission	20%	Week 26
Total		100%	

Distinction	Merit	Pass	Fail
70% and above	60% – 69%	50% – 59%	Below 50%

Attendance Minimum 85% attendance at Saturday sessions, both progress exams, exam week and all five capstone poya days.

Formative practical checks The weekly practical checks are formative and recorded as LMS laboratory completion.

Student Progress Exams Two supervised progress exams (week 8 and week 11) check progress through the networking and Windows Server content and count toward continuous assessment.

Final examination Exam week (week 25) holds a supervised theory paper and the final practical examination. A learner who fails the final examination may re-sit it once within three months.

Re-sits A learner who fails a module MCQ may re-sit it once within one month. A learner who fails the capstone panel defence may re-present once within three months.

Award requirements — to receive your certificate

You must maintain a minimum attendance of 85%, complete all module MCQs, both Student Progress Exams and the LMS laboratories, sit the final examination, submit the Student Project Book and pass the final project, achieving an overall mark of at least 50%, to qualify for the certificate.

10 Capstone Project

The programme concludes with Module 17, Final Project and Examination: Complete a final enterprise project that demonstrates the technical knowledge developed throughout the diploma. Students prepare a project proposal, implement and document the solution, present it to a panel and complete the final examination. The project is built physically over five poya days (9.00 AM – 5.00 PM) at the NextGen Campus Head Office, Nugegoda, each scheduled after the phase it builds on; the final examination (theory and final practical) is held in exam week (week 25).

Day	When	Focus	Hours
Poya Day 1	After week 5	Project proposal and approval; network build: Cisco routing and switching, VLANs, addressing and device security	8
Poya Day 2	After week 11	Windows Server infrastructure: AD, DNS, DHCP, Group Policy, file services, WSUS and WDS	8
Poya Day 3	After week 16	Enterprise services and security: firewall, web proxy and VPN, SQL Server, endpoint management and protection	8
Poya Day 4	After week 20	Hybrid cloud: Azure and Microsoft 365 (including Exchange Online email security); business continuity and DR plan	8
Poya Day 5	Week 26	AI-assisted monitoring, log analysis, automation and documentation; SLA and project report; panel presentation and technical defence	8
Total	40		

What you will deliver

- Approved project proposal and project plan
- Implemented enterprise network and server infrastructure
- Enterprise services (SQL Server, endpoint management) and security controls
- Hybrid cloud integration and DR plan
- Panel presentation and technical defence

11 Student Project Book

The Student Project Book is a guided professional record developed throughout the course (about 2.5 hours a week). It documents laboratory work, design decisions and project outcomes, and applies the professional-practice modules (M12–M15) to the learner's own final project.

The Project Book contains module-by-module laboratory records and LMS evidence, Management Module activities and reflections, capstone planning and final documentation, and a professional technical portfolio. It is reviewed by the trainer at the end of each module.

Bring your Project Book up to date every week. It is assessed at the end of the course and counts for 20% of your final mark.

12 Your Certificate

When you meet the award requirements you receive the NextGen Campus Certificate — Certificate in AI-Driven Network Engineering and Security — together with an Academic Transcript showing every module and your final grade (Distinction, Merit or Pass).

Industry certifications The modules are aligned to these industry certifications: CompTIA A+ (aligned); Cisco CCNA 200-301 (aligned); AZ-800 (Hyper-V) · VMware (aligned); AZ-800 / AZ-801 Windows Server Hybrid Administrator (pathway);

AZ-801 (pathway); CompTIA Security+ (aligned); CEH / PenTest+ (introductory); MD-102 (pathway); DP-300 (pathway); AZ-900 · AZ-104 (pathway); ISO 22301 (awareness); ITIL 4 Foundation (aligned); PMI CAPM · Agile (aligned); Career readiness; AI-901 (aligned). Certification exam fees are not included in the course fee unless NextGen Campus states otherwise.

13 Student Guidelines

- Attend at least 85% of your scheduled classes and all capstone sessions. Inform your course coordinator in advance if you cannot attend.
- Be on time for every class, online or on campus. For online classes, join with your camera available and your full name displayed.
- Complete your LMS module labs every week and keep your Project Book up to date — do not leave them to the end of a module.
- Do your own work. Copying, sharing answers or submitting someone else's work is not allowed in any assessment.
- Use AI tools responsibly: use them to learn and to check your work, check every AI output, never paste confidential or personal data, and say when you used AI in your Project Book.
- Look after campus equipment and follow lab safety instructions, including ESD precautions when handling hardware.
- Security testing is done only on authorised NextGen lab systems. You must sign the ethical conduct agreement before lab access; any breach leads to withdrawal of lab access and may lead to removal from the course.
- Keep your LMS login private and check the LMS and your email regularly for announcements, timetable changes and assessment dates.

14 Help and Contact

Head Office	NextGen Campus (Pvt) Ltd, Nugegoda, Sri Lanka
Phone	+94 11 251 5215 · +94 77 810 0810
Email	info@nextgencampus.lk
Website	www.nextgencampus.lk
LMS support	Use the help desk on the NextGen LMS for login, lab environment and technical questions. A weekly online Q&A session is held for LMS labs.
Your course coordinator	Introduced at orientation — contact them about attendance, batches, re-sits and any personal circumstances.



PART B Module Details

The course has 16 modules, studied in the order below. Each module lists its aim, what you will learn, what you will be able to do, and the hands-on labs you will complete.

Code	Module	Lecture h	Lab h	Industry alignment
M01	IT Support Technical Skills Bootcamp	8	25	CompTIA A+ (aligned)
M02	Introduction to Network Devices and Servers	8	25	Cisco CCNA 200-301 (aligned)
M03	VMware and Hyper-V Virtualisation	4	12.5	AZ-800 (Hyper-V) · VMware (aligned)
M04	Microsoft Windows Server Installation and Administration	24	75	AZ-800 / AZ-801 Windows Server Hybrid Administrator (pathway)
M05	Windows Domain Migration	4	12.5	AZ-801 (pathway)
M06	Securing Your Network	4	12.5	CompTIA Security+ (aligned)
M07	Cisco Router, Switch and Security Configuration	4	12.5	Cisco CCNA 200-301 (aligned)
M08	Kali Linux and Ethical Security Testing	4	12.5	CEH / PenTest+ (introductory)
M09	Enterprise Client Monitoring Systems	8	25	MD-102 (pathway)
M10	Installing and Configuring Microsoft SQL Server	4	12.5	DP-300 (pathway)
M11	Managing Cloud Infrastructure with Microsoft Azure and Microsoft 365	8	25	AZ-900 · AZ-104 (pathway)
M12	Business Continuity and Disaster Recovery	2	6.25	ISO 22301 (awareness)
M13	Service-Level Agreements and Agreement Scopes	2	6.25	ITIL 4 Foundation (aligned)
M14	Project Management Fundamentals	2	6.25	PMI CAPM · Agile (aligned)
M15	Interview Skills and the IT Job Market	2	6.25	Career readiness
M16	AI for Network and Systems Engineers	8	25	AI-901 (aligned)
Total for modules		96	300	

Lab hours are LMS module labs and campus lab practicals. Capstone and Project Book hours are in addition to the module hours.

M01 IT Support Technical Skills Bootcamp 8 h lecture · 25 h labs

Phase 1 — IT Support & Network Foundations · Aligned to CompTIA A+ (aligned)

Aim Build essential IT-support skills through computer hardware, operating systems, troubleshooting, networking, security awareness and customer service. Students learn how to assemble computers, install operating systems, diagnose faults, configure small networks, apply basic security controls and communicate effectively with users.

What you will learn

- Hardware components and assembly
- Windows and Linux installation
- Troubleshooting methodology
- Networking fundamentals and workgroups
- Security awareness
- Customer service and ticketing

You will be able to

- Assemble a computer and install Windows and Linux
- Diagnose and resolve common hardware and software faults
- Configure a small workgroup network
- Apply basic security controls and communicate professionally with users

Hands-on LMS labs — 25 hours

- Assemble a PC and install Windows 11
- Configure a workgroup network with file and printer sharing
- Resolve help-desk tickets end to end

Using AI in this module

- Microsoft Copilot for fault diagnosis and knowledge-base articles

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M02 Introduction to Network Devices and Servers 8 h lecture · 25 h labs

Phase 1 — IT Support & Network Foundations · Aligned to Cisco CCNA 200-301 (aligned)

Aim Understand the role of routers, switches, firewalls and servers within an organisation. Students explore routing protocols, VLANs, switch stacking, Spanning Tree Protocol, server roles, network topologies and redundant network designs.

What you will learn

- Network devices and server roles
- IPv4 addressing and subnetting
- VLANs and switch stacking
- Spanning Tree Protocol
- Routing protocols overview
- Network diagrams, planning, monitoring and server health

You will be able to

- Explain the roles of routers, switches, firewalls and servers
- Plan IPv4 addressing and subnetting
- Describe VLANs, stacking, STP and routing protocols
- Design and document a redundant network topology

Hands-on LMS labs — 25 hours

- Subnetting and addressing plans
- Draw a network diagram with a redundancy plan
- Set up basic network and server-health monitoring

Using AI in this module

- AI-assisted subnetting practice and network documentation

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M03 VMware and Hyper-V Virtualisation 4 h lecture · 12.5 h labs

Phase 2 — Windows Server & Virtualisation Infrastructure · Aligned to AZ-800 (Hyper-V) · VMware (aligned)

Aim Learn how virtualisation improves hardware usage, flexibility and business continuity. Students gain exposure to VMware ESXi, vCenter Server, Hyper-V, virtual machines, virtual switches, datastores, snapshots, templates, live migration, high availability and disaster recovery.

What you will learn

- Hypervisor types
- VMware ESXi and vCenter Server
- Microsoft Hyper-V
- Virtual switches and datastores
- Snapshots and templates
- Live migration, HA and DR

You will be able to

- Deploy virtual machines on VMware ESXi and Hyper-V
- Configure virtual switches, datastores, snapshots and templates
- Explain live migration, high availability and DR

Hands-on LMS labs — 12.5 hours

- Build a Hyper-V host with virtual switches
- Deploy VMs from templates on ESXi

Using AI in this module

- AI-generated PowerShell for Hyper-V administration

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M04 Microsoft Windows Server Installation and Administration 24 h lecture · 75 h labs

Phase 2 — Windows Server & Virtualisation Infrastructure · Aligned to AZ-800 / AZ-801 Windows Server Hybrid Administrator (pathway)

Aim Develop practical Windows Server administration skills covering server installation, WDS, WSUS, DHCP, DNS, Active Directory, Remote Desktop Services, Group Policy, file services, print services, monitoring, backup, recovery, security and compliance.

What you will learn

- Server editions, roles and licensing
- AD DS, DNS, DHCP and additional domain controllers
- OU architecture and Group Policy (basic and advanced)
- File and print services
- WDS and WSUS
- Remote Desktop Services
- Monitoring, backup, recovery, security and compliance

You will be able to

- Install and license Windows Server 2022/2025 and choose server roles
- Deploy Active Directory, DNS and DHCP with an additional domain controller
- Design OUs and Group Policy; configure file and print services
- Deploy WDS and WSUS; configure RDS, monitoring, backup and recovery
- Apply security and compliance baselines

Hands-on LMS labs — 75 hours

- Build a domain with DNS, DHCP and an additional DC
- Design OUs and Group Policy for a company
- Deploy WSUS, WDS and Windows Server Backup
- Integrated all-servers practical

Using AI in this module

- AI-generated PowerShell for bulk AD administration; AI-assisted event-log analysis

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M05 Windows Domain Migration 4 h lecture · 12.5 h labs

Phase 2 — Windows Server & Virtualisation Infrastructure · Aligned to AZ-801 (pathway)

Aim Learn how to assess an existing Windows domain and prepare a structured migration plan. Students explore migration preparation, required tools, execution, validation, post-migration testing and cleanup procedures.

What you will learn

- Domain assessment
- Migration preparation and tools
- FSMO roles and functional levels
- Execution and validation
- Post-migration testing and cleanup

You will be able to

- Assess an existing domain
- Plan a structured migration with rollback
- Execute, validate, test and clean up a migration

Hands-on LMS labs — 12.5 hours

- Migrate a Windows Server 2016/2019 domain to 2022/2025
- Validate and clean up after migration

Using AI in this module

- AI-assisted migration checklist and runbook

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M06 Securing Your Network 4 h lecture · 12.5 h labs

Phase 3 — Enterprise Services & Security · Aligned to CompTIA Security+ (aligned)

Aim Explore network-security principles, firewalls, intrusion detection and prevention systems, VPNs, encryption and incident response. Students learn how organisations protect communication, monitor suspicious activity and respond to security incidents.

What you will learn

You will be able to

- Network-security principles
- Firewalls and web proxy (pfSense/OPNsense with Squid)
- IDS/IPS (Suricata/Snort)
- VPN server and encryption
- Backup server
- Incident response
- Apply network-security principles and firewall policy
- Deploy a VPN server and a web proxy with filtering
- Configure IDS/IPS monitoring
- Respond to a network security incident

Hands-on LMS labs — 12.5 hours

- Deploy a VPN server and a filtering web proxy
- Tune IDS alerts and respond to an incident

Using AI in this module

- AI-assisted firewall rule review

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M07 Cisco Router, Switch and Security Configuration

4 h lecture · 12.5 h labs

Phase 1 — IT Support & Network Foundations · Aligned to Cisco CCNA 200-301 (aligned)

Aim Develop practical Cisco networking skills through router setup, interface configuration, VLANs, trunking, access-control lists, port security, SSH and network-device monitoring. Students learn how to secure Cisco devices while maintaining reliable communication.

What you will learn

- Cisco IOS and router setup
- Interface configuration
- VLANs and trunking
- Access-control lists
- Port security and SSH
- Device monitoring (SNMP, Syslog)

You will be able to

- Configure Cisco routers and switch interfaces
- Configure VLANs, trunking, ACLs and port security
- Secure device management with SSH and monitor devices

Hands-on LMS labs — 12.5 hours

- Build and secure a Cisco branch network
- Apply ACLs and port security

Using AI in this module

- AI review of Cisco configurations

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M08 Kali Linux and Ethical Security Testing

4 h lecture · 12.5 h labs

Phase 3 — Enterprise Services & Security · Aligned to CEH / PenTest+ (introductory)

Aim Gain introductory exposure to Kali Linux and ethical-security tools within controlled laboratory environments. Students explore authorised scanning, vulnerability assessment, web-security awareness, password-security auditing and wireless-security concepts while following legal and professional boundaries.

What you will learn

- Kali Linux and lab isolation
- Authorised scanning (Nmap)
- Vulnerability assessment
- Web-security awareness
- Password-security auditing
- Wireless-security concepts
- Computer Crimes Act No. 24 of 2007

You will be able to

- Use Kali Linux tools in an isolated lab
- Perform authorised scanning and vulnerability assessment
- Explain web, password and wireless security risks within legal boundaries

Hands-on LMS labs — 12.5 hours

- Scan and assess lab targets
- Audit password strength on lab accounts

Using AI in this module

- AI-assisted vulnerability triage, verified by the learner

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M09 Enterprise Client Monitoring Systems 8 h lecture · 25 h labs

Phase 3 — Enterprise Services & Security · Aligned to MD-102 (pathway)

Aim Learn how organisations centrally manage computers, software, updates, assets and endpoints. Students gain exposure to Microsoft Configuration Manager and Desktop Central for device discovery, client deployment, patch management, application deployment, reporting and system-health monitoring.

What you will learn

- Microsoft Configuration Manager (current branch)
- Device discovery and client deployment
- Patch and application deployment
- Reporting and system health
- ManageEngine Endpoint Central ()
- Enterprise antivirus / endpoint protection server — replaces "Corporate Virus Guard"
- Co-management with Microsoft Intune (overview)

You will be able to

- Deploy Microsoft Configuration Manager clients and discover devices
- Manage patches, applications and reports
- Use ManageEngine Endpoint Central ()
- Centrally manage enterprise endpoint protection

Hands-on LMS labs — 25 hours

- Deploy Configuration Manager clients and an application
- Manage patches with Endpoint Central
- Centrally manage endpoint protection

Using AI in this module

- AI-assisted compliance reporting

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M10 Installing and Configuring Microsoft SQL Server 4 h lecture · 12.5 h labs

Phase 3 — Enterprise Services & Security · Aligned to DP-300 (pathway)

Aim Understand how Microsoft SQL Server supports business applications and organisational data. Students learn SQL Server installation, database creation, server configuration, user permissions, security controls, backup and recovery.

What you will learn

- SQL Server 2022/2025 editions
- Installation and configuration
- Database creation
- Logins, users and permissions
- Security controls
- Backup and recovery

You will be able to

- Install and configure SQL Server 2022/2025
- Create databases and manage permissions
- Apply security controls and back up and restore databases

Hands-on LMS labs — 12.5 hours

- Install SQL Server and create a business database
- Back up and restore a database

Using AI in this module

- Copilot-assisted T-SQL, reviewed by the learner

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M11 Managing Cloud Infrastructure with Microsoft Azure and Microsoft 365**8 h lecture · 25 h labs***Phase 4 — Cloud, Continuity & Professional Practice · Aligned to AZ-900 · AZ-104 (pathway)*

Aim Develop foundation skills in cloud computing, Azure resource management, networking, storage, virtual machines, identity, security and compliance. Students also explore Microsoft 365 administration, user management, service health, collaboration tools and cloud-security controls.

What you will learn

- Cloud computing concepts
- Azure resource management
- Networking, storage and virtual machines
- Identity, security and compliance
- Microsoft 365 administration and service health
- Exchange Online mailboxes and email security (SPF, DKIM, DMARC)
- Collaboration tools and cloud-security controls
- Licensing and certification pathways

You will be able to

- Manage Azure resources, networking, storage and VMs
- Configure Microsoft Entra identity, security and compliance
- Administer Microsoft 365 users, service health and collaboration tools

Hands-on LMS labs — 25 hours

- Deploy a secured Azure VM and network
- Administer a Microsoft 365 tenant

Using AI in this module

- Copilot in Azure; Microsoft 365 Copilot overview

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M12 Business Continuity and Disaster Recovery**2 h lecture · 6.25 h labs***Phase 4 — Cloud, Continuity & Professional Practice · Aligned to ISO 22301 (awareness)*

Aim Learn how organisations prepare for system failures, cyber incidents and operational disruptions. Students assess continuity requirements, design disaster-recovery solutions, document recovery procedures and test recovery plans.

What you will learn

- Business impact analysis
- RTO and RPO
- DR design
- Recovery procedures
- Plan testing

You will be able to

- Assess continuity requirements (RTO/RPO)
- Design and document a DR solution
- Test a recovery plan

Hands-on LMS labs — 6.25 hours

- Write and test a DR plan for the lab domain

Using AI in this module

- AI-assisted DR plan drafting

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M13 Service-Level Agreements and Agreement Scopes**2 h lecture · 6.25 h labs***Phase 4 — Cloud, Continuity & Professional Practice · Aligned to ITIL 4 Foundation (aligned)*

Aim Understand how service-level agreements define responsibilities, performance targets and service expectations. Students learn how to identify key performance indicators, review real-world agreements and prepare professional SLA documents.

What you will learn

- SLA purpose and structure
- Agreement scopes
- KPIs and performance targets

You will be able to

- Explain SLAs, scopes and responsibilities
- Identify KPIs
- Prepare a professional SLA document

- Reviewing real agreements
- Writing SLAs

Hands-on LMS labs — 6.25 hours

- Prepare an SLA for an IT support service

Using AI in this module

- AI-assisted SLA review

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M14 Project Management Fundamentals 2 h lecture · 6.25 h labs

Phase 4 — Cloud, Continuity & Professional Practice · Aligned to PMI CAPM · Agile (aligned)

Aim Explore project lifecycles, planning, scheduling, risk management and methodologies such as Agile and Waterfall. Students learn how to plan IT projects, assign responsibilities, monitor progress and report project outcomes.

What you will learn

- Project lifecycles
- Planning and scheduling
- Risk management
- Agile and Waterfall
- Responsibilities and reporting

You will be able to

- Explain project lifecycles, Agile and Waterfall
- Plan and schedule an IT project with risks
- Monitor progress and report outcomes

Hands-on LMS labs — 6.25 hours

- Build a project plan for the final project

Using AI in this module

- AI-assisted project planning

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M15 Interview Skills and the IT Job Market 2 h lecture · 6.25 h labs

Phase 4 — Cloud, Continuity & Professional Practice · Aligned to Career readiness

Aim Prepare for employment through CV writing, cover-letter preparation, interview techniques and common technical interview questions. Students also learn job-search strategies, professional networking and employment opportunities in Sri Lanka and overseas.

What you will learn

- CV and cover letters
- Interview techniques
- Technical interview questions
- Job-search strategies and networking
- Opportunities in Sri Lanka and overseas

You will be able to

- Write a CV and cover letter
- Answer common technical interview questions
- Plan a job search locally and overseas

Hands-on LMS labs — 6.25 hours

- Mock technical interview and CV review

Using AI in this module

- AI-assisted CV feedback

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

M16 AI for Network and Systems Engineers 8 h lecture · 25 h labs*Phase 5 — AI for Network & Systems Engineers · Aligned to AI-901 (aligned)*

Aim Introduces AI-assisted network monitoring, troubleshooting, automation, log analysis, PowerShell scripting and technical documentation for modern network and systems engineers.

What you will learn

- AI concepts for IT engineers; prompt engineering for technical tasks
- Microsoft Copilot, Copilot in Azure, Microsoft 365 Copilot administration overview, Security Copilot overview
- AI-assisted network monitoring and anomaly detection
- AI log analysis: Windows event logs, firewall logs, syslog
- AI-assisted troubleshooting workflows
- PowerShell automation with AI: generate, review, test, deploy
- Technical documentation, runbooks and incident reports with AI
- Responsible AI: verification, data privacy (PDPA No. 9 of 2022), change control

You will be able to

- Explain how AI assistants and AI features support IT operations, and their limits
- Use AI to monitor networks, detect anomalies and analyse Windows, firewall and syslog logs
- Troubleshoot network and server faults with AI assistance and verify every result
- Automate administration with AI-assisted PowerShell, tested before production
- Produce runbooks and technical documentation with AI; apply responsible-AI and data-protection rules

Hands-on LMS labs — 25 hours

- Analyse server and firewall logs with an AI assistant and verify the findings
- Troubleshoot a broken lab network with AI help
- Write, test and correct an AI-generated PowerShell automation script
- Produce a runbook and incident report with AI and review them for accuracy

Using AI in this module

- The dedicated AI module — two full weeks

Assessment: end-of-module MCQ (continuous assessment), plus Student Progress Exams in weeks 8 and 11, and LMS laboratory completion.

