



# Network Engineering

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OFFICIAL ACADEMIC PROSPECTUS & CURRICULUM GUIDE

**NQF Level:** Industry Certification | **Credits:** N/A

**Delivery:** Online

**Print Date:** May 15, 2026

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## PROGRAMME OVERVIEW

PROGRAMME DURATION	12 Months
ACADEMIC LEVEL	Industry Certification
TOTAL CREDITS	N/A
SAQA REGISTRATION	Pending
MODE OF DELIVERY	Online
TOTAL INVESTMENT	<b>R 14,500</b> (Registration Deposit: R 799)

### Executive Introduction

Network Engineering is the complex science of designing the invisible highways that move the world's data. Our NQF5 accredited programme is an elite technical track designed for those who want to architect and defend enterprise-grade telecommunications. This course focuses heavily on the design, implementation, and management of the highly robust networks that serve as the backbone of modern global commerce.

Learners will master complex IPv4/IPv6 subnetting, OSPF/BGP routing protocols, and the deployment of hardened security perimeters across sprawling corporate campuses. The curriculum emphasizes 'Performance and Fault-Tolerance,' teaching you exactly how to build networks that are not only blazingly fast but resilient enough to automatically recover from sudden link failure. You will explore the cutting edge of 'Software-Defined Networking' (SDN), preparing you for the automated future of infrastructure.

Through accredited, rigorous project work, you will physically configure enterprise-tier Cisco routers and multi-layer switches. You will graduate as an elite Network Engineer ready to oversee the telecommunications of global airlines, financial institutions, and government agencies, possessing the engineering foresight required to design the future of communication.

## PURPOSE OF THE LEARNING PROGRAMME

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To produce the elite 'Master Architects' of the physical and logical networking world. The primary purpose of this track is to equip professionals with the engineering skills required to design planetary-scale communications infrastructure.

To master the art of enterprise-grade security and perimeter defense. We aim to ensure that every network designed by our graduates is heavily hardened against modern cyber-threats, protecting sensitive corporate data at the physical wire level.

To promote 'Infrastructural Reliability and High-Availability.' The objective is to produce engineers who can build networks that are fully resilient to hardware and link failure, ensuring zero-downtime for always-on digital businesses.

To support the digital backbone of the national and global economy. By providing formally accredited NQF Level 5 networking talent, we are improving the quality of domestic telecommunications and significantly boosting global competitiveness.

To provide the elite technical credential required for senior engineering roles. This qualification officially validates a professional's ability to design, implement, and maintain the complex networks that run the world's most successful businesses.

# MODULE BREAKDOWN

## **Module 00: Orientation & Student Portal Onboarding**

Mandatory setup: Email, Portal, Labs & PoE guidelines.

## **Module 01: Network Architecture & Design**

Comprehensive mastery and practical application of network architecture & design aligning with industry standards.

## **Module 02: Advanced Routing & Switching**

Comprehensive mastery and practical application of advanced routing & switching aligning with industry standards.

## **Module 03: Voice & Video over IP (VoIP)**

Comprehensive mastery and practical application of voice & video over ip (voip) aligning with industry standards.

## **Module 04: Network Security & Firewalls**

Comprehensive mastery and practical application of network security & firewalls aligning with industry standards.

## **Module 05: Cloud Networking & Hybrid Setup**

Comprehensive mastery and practical application of cloud networking & hybrid setup aligning with industry standards.

## **Module 06: WIL: Design a ISP-Grade Network**

Comprehensive mastery and practical application of wil: design a isp-grade network aligning with industry standards.

# PRACTICAL LAB ENVIRONMENTS

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This programme includes intensive hands-on practical labs designed to bridge the gap between theoretical knowledge and real-world industrial application.

## Lab 1: Network Design Documentation

Create detailed network diagrams and BOM. Deliverable: Design document + equipment list.

## Lab 2: Advanced Switching Lab

Configure STP, EtherChannel, and port security. Deliverable: Switch configs + topology validation.

## Lab 3: QoS & Traffic Shaping Implementation

Prioritise VoIP and critical applications. Deliverable: QoS policy + traffic test results.

## Lab 4: Network Performance Baseline

Measure and document baseline metrics. Deliverable: Performance report + monitoring config.

## CAREER FIELDS & OPPORTUNITIES

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Graduates of this learning programme are aggressively equipped with the specialized competencies required to pursue the following elite professional roles within the global industry:

<b>NETWORK ENGINEER</b>	Advance your career as a Network Engineer in the industry.
<b>INFRASTRUCTURE SPECIALIST</b>	Advance your career as a Infrastructure Specialist in the industry.
<b>LAN/WAN ADMINISTRATOR</b>	Advance your career as a LAN/WAN Administrator in the industry.
<b>NETWORK DESIGNER</b>	Advance your career as a Network Designer in the industry.
<b>TELECOM ENGINEER</b>	Advance your career as a Telecom Engineer in the industry.
<b>NETWORK SECURITY TECHNICIAN</b>	Advance your career as a Network Security Technician in the industry.
<b>SDN IMPLEMENTATION SPECIALIST</b>	Advance your career as a SDN Implementation Specialist in the industry.

## NEXT STEPS & APPLICATION

Ready to definitively advance your professional trajectory? Formal applications are currently open for the upcoming academic cycle. To securely guarantee your placement in the next intake for **Network Engineering**, please complete our online application process or contact our admissions advisory team directly.

### CONTACT ADMISSIONS

**Official Email:** [apply@softkingsacademy.co.za](mailto:apply@softkingsacademy.co.za)

**Academy Website:** [www.skacademy.co.za](http://www.skacademy.co.za)

**WhatsApp:** +27 69 271 9901

**Tel:** +27 21 1097 366 | +27 12 004 3732 | +27 70 5422 373

### DIGITAL STUDENT PORTALS

**Studentzone:** [portal.skacademy.co.za](http://portal.skacademy.co.za)

**Exam Centre:** [exams.skacademy.co.za](http://exams.skacademy.co.za)

**Verify Certificate:** [skacademy.co.za/verify-certificate](http://skacademy.co.za/verify-certificate)

**APPLY ONLINE NOW**

SOFTKINGS ACADEMY IS FORMALLY COMMITTED TO PROVIDING INDUSTRY-LEADING, ACCREDITED SKILLS DEVELOPMENT.

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INFORMATION CONTAINED WITHIN THIS PROSPECTUS IS CORRECT AT THE TIME OF PRINTING.