CLOUD ADMINISTRATOR OCCUPATIONAL CERTIFICATE:
Cloud Administrator

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
1490 Notional Hours	NQF 4	QCTO	ILT	N/A

INTRODUCTION

Cloud computing involves providing a range of services such as servers, storage, databases, networking, software, analytics, and intelligence via the Internet, commonly referred to as "the cloud." This approach allows for quicker innovation, more adaptable resources, and cost savings through economies of scale. Instead of investing in their own IT infrastructure or data centres, businesses can lease access to various services, from applications to storage, from cloud service providers. This model has particularly benefited small, medium, and micro-sized enterprises (SMMEs) that previously could not afford IT infrastructure, enabling them to operate virtually from almost anywhere.

AUDIENCE PROFILE

Typical learners include school leavers, qualified learners from TVET colleges and those currently in employment without formal recognition of competencies. No professional registration or licencing is expected for Cloud Administrators to seek employment in the sector. Cloud Administrators can be employed across various industries that use Cloud services for their clients or for their internal operations. The Cloud Administrators can further progress their career as Cloud Specialists, Cloud Engineers and Cloud Architects as well as Managers.

PREREQUISITES

Previous Technical NQF 3 courses

MODULES

Module 1:
252301-001-00-KM-01,
Introduction to Cloud
Computing
Level 4
8 Credits.

Module 2:
252301-001-00-KM-02,
Cloud Computing
Elements
Level 4
8 Credits.

Module 3:
252301-001-00-KM-03,
Containers, Cloud Native
and Kubernetes
Level 4
4 Credits.

Module 4:
252301-001-00-KM-04,
Cloud Security, Risks,
Vulnerabilities and
Mitigation
Level 4
3 Credits.

Module 5:
252301-001-00-KM-05,
Data and Databases in
the Cloud
Level 4
6 Credits.

Module 6:
252301-001-00-KM-06,
Fundamentals of Cloud
Computing Platforms
Level 4
3 Credits.

Module 7:
252301-001-00-KM-07,
Introduction to Cloud
Computing Governance,
Legislation and Ethics
Level 4
1 Credit.

Module 8:
252301-001-00-KM-08,
4th Industrial Revolution
(4IR) and Future Skills
Level 4
4 Credit.

Module 9:
252301-001-00-KM-09,
Design Thinking
Principles for Innovation
Level

Practical Module

Module 1:
252301-001-00-PM-01,
Conduct Effective Server
Maintenance and
Optimisation,
Level 4
8 Credits.

Module 2:
252301-001-00-PM-02,
Monitor On-Demand
Availability of Data
Storage, Storage
Capacity and Storage
Services over the Internet
Level 4
8 Credits.

Module 3:
252301-001-00-PM-03,
Provide Cloud Network
Administration and
Support for Optimal
Performance,
Level 4
16 Credits.

Module 4:
252301-001-00-PM-04,
Ensure Integrity of the
Cloud Ecosystem by
Implementing Security
Measures
Level 4
8 Credits.

Module 5:
252301-001-00-PM-05,
Access and Visualise

Structured Data Using
Spreadsheets
Level 4
8 Credits.

Module 6:
252301-001-00-PM-06,
Participate in a Design
Thinking for Innovation
Workshop,
Level 4
3 Credits.

Module 7:
252301-001-00-PM-07,
Function Ethically and
Effectively in the
Workplace
Level 4
4 Credits.

EXIT-LEVEL OUTCOMES

This qualification aims to equip learners with the skills necessary to work as a Cloud Administrator. In this role, they will be responsible for overseeing, managing, and resolving issues within cloud-based networks and computing resources, ensuring that cloud services operate without interruption. Additionally, they will uphold security measures to protect cloud environments from unauthorized access, threats, and other potential dangers.

Outcome 1:
Implement cloud solutions and services related to cloud computing, networks, security, and storage in a cloud environment.

Outcome 2:
Monitor and maintain servers and networks for optimal cloud performance and seamless delivery of all cloud services.

Outcome 3:
Monitor on-demand availability of data, data storage and storage capacity in line with the life cycle of data storage and hardware architecture.

Outcome 4:
Apply security configurations and compliance controls to meet cloud infrastructure requirements.

Work Experience

Module 1:
252301-001-00-WM-01,
On-Demand Availability
of Server Resources and
Services over the
Internet,
Level 4
20 Credits.

Module 2:
252301-001-00-WM-02,
On-Demand Availability
of Data Storage, Storage
Capacity and Storage
Services over the
Internet
Level 4
16 Credits.

Module 3:
252301-001-00-WM-03,
Ensure Availability and
Reliability of Network
Connection According to
Workflow and Security
Protocols,
Level 4
20 Credits.