



# ***NATIONAL SKILLS QUALIFICATION***

***LEVEL 3***

**TITLE:**

**DIGITAL SERVICE OPERATIONS**

**YEAR:**

**2024**

# **NATIONAL SKILLS QUALIFICATION**

## **NSQ LEVEL 3- DIGITAL SERVICE OPERATIONS**

### **GENERAL INFORMATION**

#### **QUALIFICATION PURPOSE**

This qualification is aimed at equipping learners with the knowledge and skills Digital Service Operations.

#### **QUALIFICATION OBJECTIVES**

To achieve this qualification, the learner should gain the following competencies:

- Operate Content Management Systems at an Intermediate level.
- Perform Transactions Management at an Intermediate level.
- Operate web server-side scripting technologies.
- Conduct Digital Marketing at an Intermediate level.
- Apply the fundamentals of Project Management
- Apply the fundamentals of Ethical Hacking
- Apply the fundamentals of Computer Networking
- Apply the fundamentals of Database Management and Administration.
- Apply the fundamentals of IT Strategy for Digital Service Operations

### Mandatory Units

S/No /Unit No	Reference Number	NOS Title	Credit Value	Guided Learning Hours	Remark
1	ICT/DSO/L3/001	Occupational Health and Safety	2	20	
2	ICT/DSO/L3/002	Communication skills in work place	2	20	
3	ICT/DSO/L3/003	Team Work	2	20	
4	ICT/DSO/L3/004	Transactions Management II	5	50	
5	ICT/DSO/L3/005	Web Server-Side Technologies	5	50	
6	ICT/DSO/L3/006	Introduction to Ethical Hacking	4	40	
7	ICT/DSO/L3/007	Introduction to Computer Networking	4	40	
8	ICT/DSO/L3/008	Introduction to Relational Database	5	50	
9	ICT/DSO/L3/009	Introduction to Knowledge Management	4	40	
10	ICT/DSO/L3/010	IT Strategy in Digital Service Operations I	4	40	
TOTAL			37	370	

### Optional Units

S/No /Unit No	Reference Number	NOS Title	Credit Value	Guided Learning Hours	Remark
11	ICT/DSO/L3/011	Content Management Systems II	5	50	
12	ICT/DSO/L3/012	Digital Marketing II	5	50	
13	ICT/DSO/L3/013	Introduction to IT Project Management in Digital Service Operations	4	40	
TOTAL			14	140	

**NOTE:** To qualify for NSQ Level 3 in Digital Service Operations, learners must complete seven compulsory units (Units 1, 2, 3, 4, 5, 6, and 7) and three optional units (Units 8, 9, and 10).

## **UNIT 1: Occupational Health and Safety**

**Unit Reference Number:** ICT/DSO/L3/001

**NSQ level:** 3

**Credit value:** 2

**Guided learning hours:** 20

**Unit Purpose:** This unit is designed to equip learners with the knowledge and skills required for health and safety in workplace.

### **Unit Assessment Requirements/Evidence Requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out. Simulation is allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Personal statement (PS) or Reflective Practice (RP)
5. Assignment (ASS)
6. Recognition of Prior Learning (RPL)

### UNIT 01: Occupational Health and Safety

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA  The learner can:	Evidence Type				Evidence Ref. Page No.			
<b>LO 1: Observe Health and Safety Precaution in Workplace</b>	1.1	Describe waste disposal in line with organizational procedures.								
	1.2	Maintain personal hygiene in the workplace.								
	1.3	Identify safety signs and symbols relevant to operation.								
	1.4	Select safety equipment to be used in the workplace.								
<b>LO 2: Understand Hazard in workplace</b>	2.1	Locate potential hazard points at in the workplace								
	2.2	Discuss causes of hazard in workplace: <ul style="list-style-type: none"> <li>• Negligence</li> <li>• Human Error</li> <li>• Machine malfunction, etc.</li> </ul>								
	2.3	Report identified hazard points to the supervisor								
	2.4	Identify possible hazard to the supervisor: <ul style="list-style-type: none"> <li>• Severe weather conditions</li> <li>• Severe vibration</li> <li>• Pollution, etc.</li> </ul>								
<b>LO 3: Understand Accident in workplace</b>	3.1	State types of accident in in workplace: <ul style="list-style-type: none"> <li>• Fire accident</li> <li>• Electric shock</li> </ul>								
	3.2	State causes of accidents in workplace								

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA  The learner can:	Evidence Type				Evidence Ref. Page No.			
	3.3	State measures to prevent accident at in the workplace: <ul style="list-style-type: none"> <li>• Maintain alertness on the job</li> <li>• Promote safety awareness</li> <li>• Observe rest cycle</li> <li>• Use PPE, etc.</li> </ul>								
	3.4	Demonstrate First Aid at workplace.								

<b>Learners Signature:</b>	<b>Date</b>
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
<b>EQA Signature (if sampled)</b>	<b>Date:</b>

## **UNIT 2: Communication Skills in workplace**

**Unit Reference Number:** ICT/DSO/L3/002

**NSQ level:** 3

**Credit value:** 2

**Guided learning hours:** 20

**Unit Purpose:** This unit is designed to equip the learner with the knowledge and skills needed to communicate effectively in the workplace.

### **Unit Assessment Requirements/Evidence Requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out. Simulation is allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Personal statement (PS) or Reflective Practice (RP)
5. Assignment (ASS)
6. Recognition of Prior Learning (RPL)



## UNIT 02: Communication Skills

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA  The learner can:	Evidence Type				Evidence Ref. Page No.			
<b>LO 1: Understand Communication in workplace</b>	1.1	Discuss communication in workplace  <ul style="list-style-type: none"> <li>• peer to peer</li> <li>• Operator Helper to Operator</li> <li>• Operator to supervisor.</li> </ul>								
	1.2	Discuss the importance of communication in a work environment.								
	1.3	Describe how to get information from schedule of work								
<b>LO 2: Understand methods of Communication in workplace</b>	2.1	Discuss the forms of communication:  <ul style="list-style-type: none"> <li>• Verbal (spoken)</li> <li>• Non-verbal (written)</li> </ul>								
	2.2	Communicate work information to supervisor								
	2.3	Communicate information in written form								
<b>LO 3: Understand elements of Communication in workplace</b>	3.1	Receive written/verbal information on the job								
	3.2	Follow verbal instruction on the job								
	3.3	Pass verbal information/instruction on the job								

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA  The learner can:	Evidence Type				Evidence Ref. Page No.			
<b>LO4: Communicate to immediate supervisor/team members</b>	4.1	Identify potential obstacles that can hinder work progress in an ICT environment, such a <ul style="list-style-type: none"> <li>• Software issues: Bugs, glitches, compatibility problems, or security breaches.</li> <li>• Hardware problems: Equipment malfunctions, hardware failures, or insufficient system resources.</li> <li>• Network connectivity issues: Lack of internet access, slow internet speeds, or network outages</li> </ul>								
	4.2	Report concerns which may affect work progress.								
	4.3	Record work instructions.								
	4.4	Record routine daily checks on software and hardware								

<b>Learners Signature:</b>  Assessors Signature:  IQA Signature (if sampled)	<b>Date</b>  Date:  Date:
<b>EQA Signature (if sampled)</b>	
<b>Date:</b>	



### **UNIT 3: Teamwork**

**Unit reference number:** ICT/DSO/L3/003

**NSQ level:** 3

**Credit value:** 2

**Guided learning hours:** 20

**Unit Purpose:** This unit is designed to equip the learner with the knowledge and skills required to relate cordially in the workplace.

#### **Unit Assessment Requirements/Evidence Requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out. Simulation is allowed in this unit and level.

Assessment methods to be used include:

1. Direct Observation (DO)
2. Question and Answer (QA)
3. Witness Testimony (WT)
4. Personal statement (PS) or Reflective Practice (RP)
5. Assignment (ASS)
6. Recognition of Prior Learning (RPL)

**UNIT 003: Teamwork**

<b>LEARNING OBJECTIVE (LO)</b>		<b>PERFORMANCE CRITERIA</b>  <b>The learner can:</b>	<b>Evidence Type</b>				<b>Evidence Ref. Page No.</b>			
<b>LO 1:</b>  <b>Understand the benefits of Working in a Team at Workplace</b>	1.1	<b>List the advantages of working as a team.</b>								
	1.2	<b>Describe the attributes of a team player:</b>  <ul style="list-style-type: none"> <li>• <b>Mutual respect</b></li> <li>• <b>Common goal</b></li> <li>• <b>Discipline</b></li> <li>• <b>Mutual understanding</b></li> <li>• <b>Trust</b></li> <li>• <b>Honesty and sincerity, etc.</b></li> </ul>								
	1.3	List members that constitute a team in the ICT work environment:  <ul style="list-style-type: none"> <li>• Systems Analysts</li> <li>• Software Developers</li> <li>• Database Administrators (DBAs)</li> <li>• Network Engineers</li> <li>• Security Analysts</li> <li>• Help Desk Technicians, etc.</li> </ul>								
	1.4	<b>Recognize team members in a environment.</b>								
<b>Lo 2:</b>  <b>Understand how to relate with team members</b>	2.1	<b>Explain the need for good working relationship with team members at the workplace.</b>								

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA  The learner can:	Evidence Type				Evidence Ref. Page No.			
	2.2	Recognize the roles of other team members.								
	2.3	Discuss your own role in achieving the objectives of the team.								
	2.4	Explain the role of a Network Administrator in an ICT work environment.								
	2.5	Discuss the relationship between the Network Administrator and positions within the ICT team.								
<b>LO3: Observe Positive Work Relationships with colleagues</b>	3.1	State the qualities of a good Network Administrator: <ul style="list-style-type: none"> <li>• Strong technical skills</li> <li>• Problem-solving abilities</li> <li>• Communication skills</li> <li>• Customer service orientation</li> <li>• Attention to detail</li> <li>• Adaptability</li> <li>• Teamwork</li> </ul>								
	3.2	Relate with other members at workplace								

LEARNING OBJECTIVE (LO)		PERFORMANCE CRITERIA  The learner can:	Evidence Type				Evidence Ref. Page No.			
	3.3	Explain the importance of effective communication and collaboration with other team members to ensure smooth operations								
	3.4	Communicate information that may affect other workers.								

<b>Learners Signature:</b>	<b>Date</b>
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
<b>EQA Signature (if sampled)</b>	<b>Date:</b>

## **Unit 4: TRANSACTIONS MANAGEMENT II**

**Unit Reference Number: ICT/DSO/L3/004**

**QCF level:** 3

**Credit value:** 5

**Guided learning hours:** 50

### **Unit Purpose:**

This unit aims to equip learners with knowledge and skills to carry out transaction management at an intermediate level.

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

1. Direct Observation
2. Recognition of Prior Learning and experience
3. Question and Answer
4. Group Projects
5. Case Studies
6. Presentations
7. Assignment

**Pre-requisite:** The learner must have completed Transaction Management I in level 2



#### Unit 4: Transaction Management II

LO (Learning outcome) Criteria:-			Evidence Type				Evidence Ref Page number			
LO 1  <i>Understand Transaction Authorization</i>	1.1	Explain the term transaction authorization								
	1.2	Describe the transaction authorization process								
	1.3	Describe the permission levels involved in transaction authorization								
LO 2  <i>Understand Transaction Processing</i>										
	2.1	Explain transaction clearing and settlement procedures								
	2.2	Discuss the concept split payment transactions								
	2.3	Describe billing in transactions								
	2.4	Describe electronic data interactions during transaction processing								
LO 3  <i>Understand Post-Transaction Activities</i>	3.1	Describe the system of querying or ascertaining transaction status								
	3.2	Describe dispute resolutions in e-commerce								
	3.3	Describe process of logging transaction records								
	3.4	Demonstrate the knowledge of recording successful transactions in a web grid interface.								

<b>Learners Signature:</b>	<b>Date:</b>
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
<b>EQA Signature (if sampled)</b>	<b>Date:</b>

## **Unit 5: WEB SERVER-SIDE TECHNOLOGIES (PHP, SQL)**

**Unit Reference Number: ICT/DSO/L3/005**

**NSQ level:** 3

**Credit value:** 5

**Guided learning hours:** 50

### **Unit Purpose:**

This unit aims to equip learners with the knowledge and skills of web server-side technologies: Php & MySQL

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

1. Direct Observation
2. Recognition of Prior Learning and experience
3. Question and Answer
4. Group Projects
5. Case Studies
6. Presentations.
7. Assignment

### Unit 5: Web Server-Side Technologies (PHP, SQL)

LO (Learning outcome)		Criteria:-	Evidence Type				Evidence Ref Page number			
LO 1  <i>Understand Server-side scripting technologies</i>	1.1	Define server-side scripting and its applications in a website infrastructure.								
	1.2	Explain various server-side scripting technologies								
	1.3	Describe the components that make up a complete server side scripting platform								
	1.4	Describe the process of setting up a server-side scripting infrastructure								
	1.5	Describe the relationship between web servers, databases and http requests								
LO 2  <i>Understand data processing with server-side scripting</i>										
	2.1	Describe the process of creating and using server-side scripting in HTML documents								
	2.2	Demonstrate how server-side scripting file is included in HTML files								
	2.3	Demonstrate how variables and functions are declared and defined in server-side scripting								
	2.4	Use server-side scripting for processing data on a html form								

LO3  <i>Understand the development of interactive web Pages</i>											
	3.1	Introduction to an Object Oriented programming (OOP) language									
	3.2	Define variables, logical operators and control structures in an OOP language									
	3.3	Explain how to use any OOP language with HTML									
	3.4	Demonstrate how to post and publish a website									
	3.5	Identify the relationship between Client side and Server side scripts									
LO 4  <i>Understand database management system</i>											
	4.1	Define Database management systems (e.g. Oracle, MySQL, etc)									
	4.2	Develop Database connectivity									
	4.3	Demonstrate ability to connect to a DBMS									

<b>Learners Signature:</b>   Assessors Signature:  IQA Signature (if sampled)	<b>Date:</b>   Date:  Date:
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<b>EQA Signature (if sampled)</b>	<b>Date:</b>
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## **UNIT 6: INTRODUCTION TO ETHICAL HACKING**

**Unit Reference Number: ICT/DSO/L3/006**

**NSQ level:** 3

**Credit value:** 4

**Guided learning hours:** 40

### **Unit Purpose:**

This unit aims to equip learners with knowledge and skills of solving security issues in digital service operations.

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

1. Direct Observation
2. Recognition of Prior Learning and experience
3. Question and Answer
4. Group Projects
5. Case Studies
6. Presentations.
7. Assignment

### Unit 6: Introduction to Ethical Hacking

LO (Learning outcome)		Criteria:-	Evidence Type				Evidence Ref Page number			
LO 1  <i>Understand the concept of Ethical Hacking</i>										
	1.1	Define Ethical Hacking								
	1.2	Describe Ethical Hacking methodology								
	1.3	Explain Ethical Hacking terminologies such as threat, exploit, vulnerability, target of evaluation (ToE), denial of service etc.								
LO 2  <i>Understand the processes of ethical hacking</i>										
	2.1	Describe the different phases of ethical hacking (i.e. Reconnaissance, foot printing, scanning, gaining access, maintaining access and covering tracks)								
	2.2	Describe the techniques of Ethical Hacking								
	2.3	Explain Port, Service and Data Enumeration as it relates to hacking								
LO3: Carry out Ethical Hacking	2.1	Detect Ransomware Attack								



	2.2	Detect Phishing										
	2.3	Recover hacked facebook account										
	2.4	Recover Hacked Whatsapp account										

<b>Learners Signature:</b>	<b>Date:</b>
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
<b>EQA Signature (if sampled)</b>	<b>Date:</b>

## **UNIT 7: INTRODUCTION TO COMPUTER NETWORKING**

**Unit Reference Number: ICT/DSO/L3/007**

**NSQ level:** 3

**Credit value:** 4

**Guided learning hours:** 40

### **Unit Purpose:**

This unit aims to equip learners with the knowledge of network fundamentals.

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

1. Direct Observation
2. Recognition of Prior Learning and experience
3. Question and Answer
4. Group Projects
5. Case Studies
6. Presentations.
7. Assignment

### Unit 7: Introduction to Computer Networking

LO (Learning outcome)		Criteria:-	Evidence Type				Evidence Ref Page number			
<b>LO 1</b>  <i>Understand Networks and its Essentials</i>										
	1.1	Define a network								
	1.2	List network hardware component								
	1.3	Identify types of network and network topologies								
	1.4	Explain types of network configuration (e.g. peer-to-peer networks, client/server networks)								
	1.5	Describe the different types of cable categories and connectors								
<b>LO 2</b>  <b>Understand Network Layers, Model and Architecture</b>	2.1	Define IP address terminologies (e.g. Host, Broadcast etc)								
	2.2	List the TCP/IP Reference Model								
	2.3	State the OSI reference model								
<b>LO 3</b>  <b>Understand IP Address Classes and Subnetting</b>	3.1	List classes of IP address								
	3.2	Explain the types of IP Address (Public and Private)								
	3.3	Define subnet mask								
	3.4	Explain the process subnet mask calculation								

<b>Learners Signature:</b>	<b>Date:</b>
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
<b>EQA Signature (if sampled)</b>	<b>Date:</b>

## **Unit 8: Introduction to Relational Database**

**Unit Reference Number: ICT/DSO/L3/008**

**NSQ level:** 3

**Credit value:** 5

**Guided learning hours:** 50

### **Unit Purpose:**

This unit aims to equip learners with the knowledge and skills for designing a database and the basics of Structured Query Language.

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

8. Direct Observation
9. Recognition of Prior Learning and experience
10. Question and Answer
11. Group Projects
12. Case Studies
13. Presentations.
14. Assignment

## Unit 8: Introduction to Relational Database

LO (Learning outcome)		Criteria:-	Evidence Type				Evidence Ref Page number			
<b>LO1.</b>  <b>Understand Database Models &amp; Structure</b>										
	1.1	Define a Database								
	1.2	Define Database Management System (DBMS)								
	1.3	Describe the need for a database system								
	1.4	Identify the functional components of a DBMS								
	1.5	Describe the effects of poor database planning and design								
<b>LO2</b>  <b>Understand Database Design and logic</b>										
	2.1	Explain any database design model (e.g. entity-relationship model, UML, etc)								
	2.2	List types of relationships between entities								
	2.3	Describe logical database design								
	2.4	Explain Relational Database Management System (RDBMS)								
	2.5	Create a database design using any model								
<b>LO3</b>										

<b>Understand Database Structured Query Language and Management Systems</b>	3.1	Define SQL Management Systems								
	3.2	Identify popular SQL Management Systems (e.g., MySQL, PostgreSQL, Microsoft SQL Server, Oracle, etc).								
	3.3	Create a simple SQL query								
	3.4	Describe user access and permission management in SQL Management Systems.								

<b>Learners Signature:</b>	<b>Date:</b>
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
<b>EQA Signature (if sampled)</b>	<b>Date:</b>

## **Unit 9: CONTENT MANAGEMENT SYSTEMS II**

**Unit Reference Number: ICT/DSO/L3/009**

**NSQ level:** 3

**Credit value:** 5

**Guided learning hours:** 50

### **Unit Purpose:**

This unit aims to equip learners with knowledge and skills to use content management systems at an intermediate level.

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

15. Direct Observation
16. Recognition of Prior Learning and experience
17. Question and Answer
18. Group Projects
19. Case Studies
20. Presentations.
21. Assignment

***Pre-requisite:*** The learner must have completed Content Management System I in Level 2



### Unit 9: Content Management Systems II

LO (Learning outcome) Criteria:-			Evidence Type				Evidence Ref Page number			
LO 1  <b>Understand how to improve User Experience in Content Management System (CMS)</b>	1.1	Describe how User Interfaces can be integrated into Content Management systems								
	1.2	Describe a User Interface framework that can be integrated into content management systems								
	1.3	Develop quality User Interface with a content management system								
LO 2  <b>Understand Content Management System Functionality</b>										
	2.1	Describe plugins and their importance in Content Management Systems								
	2.2	Describe the effect of plugins integration in Content Management Systems								
	2.3	Identify types and categories of plugins								
	2.4	Describe methodologies for plugin integration into content management systems								
	2.5	Demonstrate the installation of different plugins to design a robust website								

LO 3 Know advanced features of popular CMS platforms (e.g., WordPress, Drupal, Joomla) for content management	3.1	Understand taxonomies (categories, tags, custom post types) for organizing content effectively.								
	3.2	Identify taxonomies (categories, tags, custom post types) for organizing content effectively								
	3.3	Design content scheduling, version control, and approval workflows for publishing.								

<b>Learners Signature:</b>   Assessors Signature: IQA Signature (if sampled)	<b>Date:</b>   Date: Date:
<b>EQA Signature (if sampled)</b>	
<b>Date:</b>	

## **Unit 10: Digital Marketing II**

**Unit Reference Number: ICT/DSO/L3/010**

**NSQ level:** 3

**Credit value:** 5

**Guided learning hours:** 50

### **Unit Purpose:**

This unit aims to equip learners with the knowledge and skills of digital marketing operations at an intermediate level.

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

- 22. Direct Observation
- 23. Recognition of Prior Learning and experience
- 24. Question and Answer
- 25. Group Projects
- 26. Case Studies
- 27. Presentations.
- 28. Assignment

***Pre-requisite:*** The learner must have completed Digital Marketing I in Level 2

### Unit 10: Digital Marketing II

LO (Learning outcome)			Criteria:-				Evidence Type				Evidence Ref Page number			
<b>LO 1</b>  <b>Understand Search Engines</b>														
	1.1	Define a search Engine												
	1.2	Identify different search engines												
	1.3	Describe the importance of search engines to websites, users and businesses												
<b>LO 2:</b> <b>Know digital marketing techniques</b>	2.1	Define digital marketing techniques												
	2.2	List digital marketing techniques (e.g. Search Engine Optimization, Affiliate Marketing, Social Media Marketing etc.)												
	2.3	Describe digital marketing techniques and their importance												
	2.4	Implement digital marketing with one or more digital marketing techniques												
<b>LO 3:</b> <b>Know Digital Marketing Matrices</b>	3.1	Define digital marketing metrics												
	3.2	Describe how to measure online marketing success with digital marketing tools.												



## **Unit 11: INTRODUCTION TO IT PROJECT MANAGEMENT IN DIGITAL SERVICE OPERATIONS**

**Unit Reference Number: ICT/DSO/L3/011**

**NSQ level:** 3

**Credit value:** 4

**Guided learning hours:** 40

### **Unit Purpose:**

This unit aims to equip learners with the knowledge and skills of project management in digital service operations.

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

- 29. Direct Observation
- 30. Recognition of Prior Learning and experience
- 31. Question and Answer
- 32. Group Projects
- 33. Case Studies
- 34. Presentations.
- 35. Assignment

## Unit 11: Introduction to IT Project Management in Digital Service Operations

LO (Learning outcome)		Criteria:-	Evidence Type				Evidence Ref Page number			
<b>LO 1</b> <b>Understand fundamentals of IT Project Management</b>										
	1.1	Define an IT Project								
	1.2	Identify the phases of an IT Project								
	1.3	Identify the constraints of IT Project Management (Time, Scope and Budget)								
	1.4	Describe the role of a Project Manager								
	1.5	Explain the key knowledge areas (Cost Management, Quality Management, Risk Management, Communications Management) IT Project Managers should possess								
<b>LO 2</b> <b>Understand the tools, techniques and stakeholders for Project Management</b>										
	2.1	Define Project Management Tools								
	2.2	Identify tools and techniques for IT Project Management (Project Charter, Gantt charts, change requests)								
	2.3	Define IT Project Stakeholders								

	2.4	Identify different IT Project Stakeholders									
<b>LO3: Understand the Antecedents of Project Success</b>											
	3.1	Identify the factors which determine the success of a project (e.g. On budget, Meets Customer's requests, On time)									
	3.2	Describe factors that can lead to the failure of a project (e.g. Poor planning, lack of resources, late delivery)									
	3.3	Describe how to close a project									

Learners Signature:	Date:
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
EQA Signature (if sampled)	Date:



## **UNIT 12: INTRODUCTION TO KNOWLEDGE MANAGEMENT**

**Unit Reference Number: ICT/DSO/L3/012**

**NSQ level:** 3

**Credit value:** 4

**Guided learning hours:** 40

### **Unit Purpose:**

This unit aims to equip learners with knowledge and skills of management in digital service operations.

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

- 36. Direct Observation
- 37. Recognition of Prior Learning and experience
- 38. Question and Answer
- 39. Group Projects
- 40. Case Studies
- 41. Presentations.
- 42. Assignment

### Unit 12: Introduction to Knowledge Management

LO (Learning outcome)		Criteria:-	Evidence Type				Evidence Ref Page number			
<b>LO 1</b>  <b>Understand fundamental concepts of Knowledge</b>										
	1.1	Define Knowledge								
	1.2	Identify different types of knowledge								
	1.3	Identify the difference between data, information and knowledge								
	1.4	Describe the importance of knowledge in managing business								
<b>LO 2</b>  <b>Understand the concept of knowledge management</b>	2.1	Define Knowledge management								
	2.2	Identify knowledge management techniques								
	2.3	Differentiate knowledge management and data management								
	2.4	Identify different processes in knowledge management								
	2.5	Describe the importance of knowledge management in business								

<b>LO3: Understand knowledge management infrastructure</b>	3.1	Define the key components of knowledge management infrastructure										
	3.2	Explain knowledge base system infrastructure										
	3.3	Explain ways in which knowledge management infrastructure impacts business										

Learners Signature:	Date:
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
EQA Signature (if sampled)	Date:

## **UNIT 13: IT STRATEGY IN DIGITAL SERVICE OPERATIONS I**

**Unit Reference Number:** ICT/DSO/L3/0013

**NSQ Level:** 3

**Credit Value:** 4

**Guided Learning hours:** 40

### **Unit Purpose:**

This unit aims to equip learners with knowledge and skills of using technology in a business environment.

### **Unit assessment requirements/ evidence requirements:**

Assessment must be carried out in real workplace environment in which learning and human development is carried out.

### ***Assessment methods to be used include:***

- 43. Direct Observation
- 44. Recognition of Prior Learning and experience
- 45. Question and Answer
- 46. Group Projects
- 47. Case Studies
- 48. Presentations.
- 49. Assignment

### UNIT 13: IT Strategy in Digital Service Operations I

LO (Learning outcome) Criteria:-			Evidence Type				Evidence Ref Page number			
<b>LO 1:</b>  <b>Understand the concept of IT Strategy</b>	1.1	Explain IT Strategy								
	1.2	Outline the different approaches to IT strategy								
	1.3	Discuss the benefits of IT strategies to businesses								
<b>LO 2:</b>  <b>Understand the internal and external business environments</b>										
	2.1	Describe a business environment								
	2.2	Differentiate between the internal (Micro) and External (Macro) Business environments								
	2.3	Outline the components of internal and external business environment								
<b>LO 3:</b>  <b>Know environmental analysis tools and techniques</b>	3.1	Outline tools for internal (micros) environmental analysis								
	3.2	Outline tools for external (macro) environmental analysis								
	3.3	Conduct internal (micro) environmental analysis of a Digital Service business								

	3.4	Conduct external (macro) environmental analysis of a Digital Service Business									
<b>LO 4: Understand the Role of Strategy in Digital Service Operations Businesses</b>	4.1	Define business mission, vision, objectives									
	4.2	Discuss the importance of strategy for Digital Service Businesses									
	4.3	Discuss the relationship between strategy, objective and business environment									
	4.4	Develop a strategy for a Digital Service business									

Learners Signature:	Date:
Assessors Signature:	Date:
IQA Signature (if sampled)	Date:
EQA Signature (if sampled)	Date:



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