DIGITAL LITERACY

ISCED UNIT CODE: 0611 551 06A

Relationship with occupational standards

This unit addresses the Unit of Learning: **Apply Digital Literacy**

DURATION OF UNIT: 40 HOURS

UNIT DESCRIPTION

This unit of learning covers the learning outcomes, content, assessment methods, methods of delivery and resources required to apply digital literacy. It involves operating computer devices, solving tasks using the Office suite, managing data and information, performing online communication and collaboration and applying cybersecurity.

Summary of Learning Outcomes

S/No	Learning Outcomes	Duration (Hours)
1.	Operate Computer Devices	10
2.	Solve Tasks Using Office Suite	5
3.	Manage Data and Information	5
4.	Perform Online Communication and Collaborations	10
5.	Apply Cybersecurity Skills	5
6.	Perform Online Jobs	5
Total		**40**

Summary of Learning Outcomes

Unit of learning code	Unit of learning title	Elements	Duration in hours
0611 551 06A	Digital literacy	Operate Computer Devices	10
		Solve Tasks Using Office Suite	10
		Manage Data and Information	10

Unit of learning code	Unit of learning title	Elements	Duration in hours
		Perform Online Communication and Collaborations	20
		Apply Cybersecurity Skills	10
		Perform Online Jobs	20
	TOTAL		80

Learning outcomes, Content, and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Operate computer devices	1.1 Meaning and importance of digital literacy 1.2 Functions and Uses of Computers 1.3 Classification of computers 1.4 Components of a computer system 1.5 Computer Hardware 1.5.1 The System Unit E.g. Motherboard, CPU, casing 1.5.2 Input Devices e.g. pointing, keying, scanning, voice/speech recognition, direct data capture devices. 1.5.3 Output Devices e.g. hardcopy output and softcopy output 1.5.4 Storage Devices e.g. main memory e.g. RAM, secondary storage (Solid state devices, Hard Drives, CDs & DVDs, Memory cards, Flash drives 1.5.5 Computer Ports e.g. HDMI, DVI, VGA, USB type C etc.	Observation Written assessment • Observation • Portfolio of Evidence • Project • Written assessment • Practical assessment • Oral assessment

Learning Outcome	Content	Suggested Assessment Methods
	1.6 Classification of computer software 1.7 Operating system functions 1.8 Procedure for turning/off a computer 1.9 Mouse use techniques 1.10 Keyboard Parts and Use Techniques 1.11 Desktop Customization 1.12 File and Files Management using an operating system 1.13 Computer Internet Connection Options 1.13.1 Mobile Networks/Data Plans 1.13.2 Wireless Hotspots 1.13.3 Cabled (Ethernet/Fiber) 1.13.4 Dial-Up 1.13.5 Satellite 1.14 Computer external devices management 1.14.1 Device connections 1.14.2 Device controls (volume controls and display properties)	

2. Solve tasks using Office suite	2.1 Meaning and Importance of Word Processing
	2.2 Examples of Word Processors
	2.3 Working with word documents
	   2.3.1 Open and close word processor
	   2.3.2 Create a new document
	   2.3.3 Save a document
	   2.3.4 Switch between open documents
	2.4 Enhancing productivity
	   2.4.1 Set basic
		• Observation
		• Portfolio of Evidence
		• Project
		• Written assessment
		• Practical assessment
		• Oral assessment

Learning Outcome	Content	Suggested Assessment Methods
	options/preferences	
	2.4.2 Help resources	
	2.4.3 Use magnification/zoom tools	
	2.4.4 Display, hide built-in tool bar	
	2.4.5 Using navigation tools	
	2.5 Typing Text	
	2.6 Document editing (copy, cut, paste commands, spelling and Grammar check)	
	2.7 Document formatting	
	2.7.1 Formatting text	
	2.7.2 Formatting paragraph	
	2.7.3 Formatting styles	
	2.7.4 Alignment	
	2.7.5 Creating tables	
	2.7.6 Formatting tables	
	2.8 Graphical objects	
	2.8.1 Insert object (picture, drawn object)	
	2.8.2 Select an object	
	2.8.3 Edit an object	
	2.8.4 Format an object	
	2.9 Document Print setup	
	2.9.1 Page layout,	
	2.9.2 Margins set up	
	2.9.3 Orientation.	
	2.10 Word Document Printing	
	2.11 Meaning & Importance of electronic spreadsheets	
	2.12 Components of Spreadsheets	
	2.13 Application areas of spreadsheets	
	2.14 Using spreadsheet application	
	2.14.1 Parts of Excel screen:	

Learning Outcome	Content	Suggested Assessment Methods
	ribbon, formula bar, active cell, name box, column letter, row number, Quick Access Toolbar.	
	2.14.2 Cell Data Types	
	2.14.3 Block operations	
	2.14.4 Arithmetic operators (formula bar (-, +, *, /).	
	2.14.5 Cell Referencing	
	2.15 Data Manipulation	
	2.15.1 Using Functions (Sum, Average, SumIF, Count, Max, Max, IF, Rank, Product, mode etc)	
	2.15.2 Using Formulae	
	2.15.3 Sorting data	
	2.15.4 Filtering data	
	2.15.5 Visual representation using charts	
	2.16 Worksheet printing	
	2.17 Electronic Presentations	
	2.18 Meaning and Importance of electronic presentations	
	2.19 Examples of Presentation Software	
	2.20 Using the electronic presentation application	
	2.20.1 Parts of the PowerPoint screen (slide navigation pane, slide pane, notes, the ribbon, quick access toolbar, and scroll bars).	
	2.20.2 Open and close presentations	
	2.20.3 Creating Slides (Insert new slides, duplicate, or reuse slides.)	

Learning Outcome	Content	Suggested Assessment Methods
	2.20.4 Text Management (insert, delete, copy, cut and paste, drag and drop, format, and use spell check).	
	2.20.5 Use magnification/zoom tools	
	2.20.6 Apply or change a theme.	
	2.20.7 Save a presentations	
	2.20.8 Switch between open presentations	
	2.21 Developing a presentation	
	2.21.1 Presentation views	
	2.21.2 Slides	
	2.21.3 Master slide	
	2.22 Text	
	2.22.1 Editing text	
	2.22.2 Formatting	
	2.22.3 Tables	
	2.23 Charts	
	2.23.1 Using charts	
	2.23.2 Organization charts	
	2.24 Graphical objects	
	2.24.1 Insert, manipulate	
	2.24.2 Drawings	
	2.25 Prepare outputs	
	2.25.1 Applying slide effects and transitions	
	2.25.2 Check and deliver	
	2.25.2.1 Spell check a presentation	
	2.25.2.2 Slide orientation	
	2.25.2.3 Slide shows, navigation	
	2.26 Print presentations (slides and	

Learning Outcome	Content	Suggested Assessment Methods
	handouts)	

3. Manage Data and Information	3.1 Meaning of Data and information
	3.2 Importance and Uses of data and information
	3.3 Types of internet services
	   3.3.1 Communication Services
	   3.3.2 Information Retrieval Services
	   3.3.3 File Transfer
	   3.3.4 World Wide Web Services
	   3.3.5 Web Services
	   3.3.6 Automatic Network Address Configuration
	   3.3.7 News Group
	   3.3.8 Ecommerce
	3.4 Types of Internet Access Applications
	3.5 Web browsing concepts
	   3.5.1 Key concepts
	   3.5.2 Security and safety
	3.6 Web browsing
	   3.6.1 Using the web browser
	   3.6.2 Tools and settings
	   3.6.3 Clearing Cache and cookies
	   3.6.4 URIs
	   3.6.5 Bookmarks
	   3.6.6 Web outputs
	3.7 Web based information
	   3.7.1 Search
	   3.7.2 Critical evaluation of information
	   3.7.3 Copyright, data protection
	3.8 Downloads Management
		• Observation
		• Portfolio of Evidence
		• Project
		• Written assessment
		• Practical assessment
		• Oral assessment

Learning Outcome	Content	Suggested Assessment Methods
	3.9 Performing Digital Data Backup (Online and Offline) 3.10 Emerging issues in internet	

4. Perform online communication and collaboration	4.1 Netiquette principles
	4.2 Communication concepts
	   4.2.1 Online communities
	   4.2.2 Communication tools
	   4.2.3 Email concepts
	4.3 Using email
	   4.3.1 Sending email
	   4.3.2 Receiving email
	   4.3.3 Tools and settings
	   4.3.4 Organizing email
	4.4 Digital content copyright and licenses
	4.5 Online collaboration tools
	   4.5.1 Online Storage (Google Drive)
	   4.5.2 Online productivity applications (Google Docs & Forms)
	   4.5.3 Online meetings (Google Meet/Zoom)
	   4.5.4 Online learning environments
	   4.5.5 Online calendars (Google Calendars)
	   4.5.6 Social networks (Facebook/Twitter - Settings & Privacy)
	4.6 Preparation for online collaboration
	   4.6.1 Common setup features
	   4.6.2 Setup
	4.7 Mobile collaboration
	   4.7.1 Key concepts
	   4.7.2 Using mobile devices
		• Observation
		• Portfolio of Evidence
		• Project
		• Written assessment
		• Practical assessment
		• Oral assessment

Learning Outcome	Content	Suggested Assessment Methods
	4.7.3 Applications 4.8 Synchronization	

5. Apply cybersecurity skills	5.1 Data protection and privacy
	    5.1.1 Confidentiality of data/information
	    5.1.2 Integrity of data/information
	    5.1.3 Availability of data/information
	5.2 Internet security threats
	    5.2.1 Malware attacks
	    5.2.2 Social engineering attacks
	    5.2.3 Distributed denial of service (DDoS)
	    5.2.4 Man-in-the-middle attack (MitM)
	    5.2.5 Password attacks
	    5.2.6 IoT Attacks
	    5.2.7 Phishing Attacks
	    5.2.8 Ransomware
	5.3 Computer threats and crimes
	5.4 Cybersecurity control measures
	    5.4.1 Physical Controls
	    5.4.2 Technical/Logical Controls (Passwords, Pins, Biometrics)
	    5.4.3 Operational Controls
	5.5 Laws governing protection of ICT in Kenya
	    5.5.1 The Computer Misuse and Cybercrimes Act No. 5 of 2018
	5.6 The Data Protection Act No. 24 Of 2019
		• Observation
		• Portfolio of Evidence
		• Project
		• Written assessment
		• Practical assessment
		• Oral assessment

Perform Online Jobs	5.7 Data protection and privacy 5.7.1 Confidentiality of	• Observation

Learning Outcome	Content	Suggested Assessment Methods

	data/information
	5.7.2 Integrity of data/information
	5.7.3 Availability of data/information
	5.8 Internet security threats
	    5.8.1 Malware attacks
	    5.8.2 Social engineering attacks
	    5.8.3 Distributed denial of service (DDoS)
	    5.8.4 Man-in-the-middle attack (MitM)
	    5.8.5 Password attacks
	    5.8.6 IoT Attacks
	    5.8.7 Phishing Attacks
	    5.8.8 Ransomware
	5.9 Computer threats and crimes
	5.10 Cybersecurity control measures
	    5.10.1 Physical Controls
	    5.10.2 Technical/Logical Controls (Passwords, Pins, Biometrics)
	    5.10.3 Operational Controls
	5.11 Laws governing protection of ICT in Kenya
	    5.11.1 The Computer Misuse and Cybercrimes Act No. 5 of 2018
	5.12 The Data Protection Act No. 24 Of 2019
		• Portfolio of Evidence
		• Project
		• Written assessment
		• Practical assessment
		• Oral assessment

6. Apply job entry techniques	6.1 Introduction to online working
	6.2 Types of online Jobs
	6.3 Online job platforms
	    6.3.1 Remo task
	    6.3.2 Data annotation tech
	    6.3.3 Cloud worker
		• Observation
		• Portfolio of Evidence
		• Project
		• Written assessment

Learning Outcome	Content	Suggested Assessment Methods
	6.3.4 Upwork 6.3.5 One forma 6.3.6 Appen 6.4 Online account and profile management 6.5 Identifying online jobs/job bidding 6.6 Online digital identity 6.7 Executing online tasks 6.8 Management of online payment accounts.	• Practical assessment • Oral assessment

Suggested Methods Instruction

- Instructor-led facilitation using active learning strategies
- Demonstration by trainer
- Practical work by trainees
- Viewing of related videos
- Group discussions
- Project
- Role play
- Case study

RECOMMENDED RESOURCES FOR 30 TRAINEES

S/No.	Category/Item	Description/Specifications	Quantity	Recommended Ratio (Item: Trainee)
A	Learning Materials			
	Textbooks	Comprehensive texts books on Digital Literacy	30 pcs	1:1
	Installation Manuals	Detailed guides for equipment and software installation and troubleshooting	5 pcs	1:5
	PowerPoint Presentations	For trainer's use, covering course content and practical applications	1	1:30

S/No.	Category/Item	Description/Specifications	Quantity	Recommended Ratio (Item: Trainee)
	Projector	Functional projector for displaying content during presentations	1	1:30
	Lap top	Functional with online instructional content.		
	Internet	Stable and reliable with bandwidth of 20Mbps		
	White board	Quality whiteboard of approximately 6 ft by 3 ft for writing during theory instruction	1	1:30
	Printer	An ink-jet, laser-jet or toner-cartridge printer for printing notes, instructions and working drawings	1	1:30
	Templates	Templates for creating various documents e.g., CV, Cover Letter, etc.	30	1:1
B	Learning Facilities & Infrastructure			
	Lecture/Theory Room /Learning resource Area*	Spacious, equipped with projectors and Seats for 30 trainees, approximately 45 sqm (5 m x 9 m)	1	1:30
	Computer Laboratory	Equipped with at least 30 functional computers with internet connectivity and the following software: Windows/ Linux/ Macintosh Operating System Microsoft Office Software Google Workspace Account Antivirus Software	30	1:1
C	Consumable Materials			
	Printing Papers	A4 and A3 Printing papers suitable for the task	Enough	

S/No.	Category/Item	Description/Specifications	Quantity	Recommended Ratio (Item: Trainee)
	Whiteboard Marker Pens	Dry-erase markers for trainers use. Assorted colors	Enough	
	Storage devices	Any of the following storage devices: USB Flash Drive USB Hard Drive Compact Disks (CDs) Digital Versatile Disks (DVDs)	Enough	