## USAGE OF ICT DEVICES

**UNIT CODE:** ICT/CU/ICTA/CC/01/4/A

**Relationship to Occupational Standards**

This unit addresses the unit of competency: Understanding basic concepts of ICT.

**Duration of Unit:**80 hours

**Unit Description:**

This unit describes the competencies required in Understanding Basic use of ICT devices.

**Summary of Learning Outcomes:**

1. Identification of Computer components
2. Operating a computer
3. Understanding Computer Networks
4. Identification of Applications of ICT
5. Identification of healthy, safety and environmental issues in ICT
6. Identification of ICT security issues

**Learning Outcomes, Content and Suggested Assessment Methods**

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| **Learning Outcome** | **Content** | **Suggested Assessment Methods** |
| 1. Identification of Computer components | * Definition of a hardware device * Terminologies related to hardware devices. * Hardware devices * Input * Mouse * Keyboard * Scanner * Digital camera * Microphones * Joysticks * Output * Monitor * Printer * Speakers * Headsets * Projector * Desktop/Laptop * Storage * Memory * Functions of hardware devices * Input * Output * Processing * Storage * Configure hardware devices * Document hardware devices * Definition of operating system and related terminologies * Functions of application and system software * Differences between application and system software * Types of application software * Word processing * Spreadsheet * Database * Multimedia * Graphics * Examples of Operating system software * Ms DOS * LINUX * Windows * Mac OS * Android | * Practical * Oral questioning * Written test |
| 1. 2. Operating a Computer | * Booting procedures * Cold boot * Warm boot * Shut down procedures * File Management Operations * Cut * Copy * Paste * Rename | * Practical * Observation * Written tests * Oral |
| 1. 3.Computer networks | * Define computer network * Terminologies used in a network * Node * Host * Server * Client * Components of network * Computer * Network devices (switch, hub, router etc) * Communication channels * Types of networks * LAN * WAN * MAN * WLAN * Application areas of computer networks * Resource sharing * Communication * Work distribution. | * Practical * Observation * Written tests * Oral |
| 1. 4. Applications of ICT | * ICT Terminologies * Data * Information * ICT * Definition of Components of ICT (People, Hardware, Software, Procedures, information and data)    ICT applications areas   * Manufacturing * Security * Education * Farming * Hospitality * Medicine * Banking * Transportation * Tourism * Government    Benefits of ICT use   Challenges and opportunities of ICT use in society   Emerging trends and their causes | * Written * Oral |
| 1. Identify health, safety and environmental issues in ICT | • ICT Health related problems  • Workplace ergonomics  • Safety related problems   Equipment safety issues (Appropriateness and maintenance)   Safe use and disposal of electronic equipment and materials  • Environmental related problems   Environmental factors  affecting human health  and equipment  functionality: Dust,  temperature, humidity,  Noise   Electronic Waste Management  • Standards and guidelines for HSE care  • Internal  • Manufacturer  • Benefits of green ICT/Computing   Recycling electronics   Limiting printing and recycling paper   Purchasing from environmentally committed companies  • Customising computer power management | * Practical * Oral * Observation * Written |
| 1. Identify ICT security issues | * Define ICT security * Terminologies used in ICT * Goals of ICT security   Confidentiality  Integrity  Availability   * ICT assets to be secured * Data * Information * Media * Hardware * Software * Advantages of ICT security * Types of security threats * Security control | * Written * Oral |

**Suggested Methods of Delivery**

* Instructor led facilitation of theory
* Demonstration by trainer
* Practical work done by trainee
* Group discussions

The delivery may also be supplemented and enhanced by the following, if the opportunity allows:

* Visiting lecturer/trainer from the ICT sector;
* Industrial visits.

**Recommended Resources**

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| **Tool.**  **Software, internet** |
| **Equipment**  Computer  Lcd projectors |
| **Materials and supplies**  **Materials**   * Digital instructional material including online resources, DVDs and CD, stationary   **Supplies**   * Power cable * Personal protective materials * Tonners and inks * UPS |
| **Reference materials**  Manufacturers manuals |