



REPUBLIC OF KENYA

NATIONAL COMPETENCY BASED CURRICULUM

FOR

ICT LEVEL 4



**TVET CDACC
P.O BOX 15745-00100
NAIROBI**

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FOREWORD

The provision of quality education and training is fundamental to the Government's overall strategy for social economic development. Quality education and training will contribute to achievement of Kenya's development blueprint, Vision 2030 and sustainable development goals.

Reforms in the education sector are necessary for the achievement of Kenya Vision 2030 and meeting the provisions of the Constitution of Kenya 2010. The education sector had to be aligned to the Constitution of Kenya 2010 and this resulted to the formulation of the Policy Framework for Reforming Education and Training (Sessional Paper No. 4 of 2016). A key feature of this policy is the radical change in the design and delivery of the TVET training. This policy document requires that training in TVET be competency based, curriculum development be industry led, certification be based on demonstration of competence and mode of delivery allows for multiple entry and exit in TVET programmes.

These reforms demand that Industry takes a leading role in curriculum development to ensure the curriculum addresses its competence needs. It is against this background that these Occupational Standards were developed for the purpose of developing a competency-based curriculum for ICT Technician. These Occupational Standards will also be the bases for assessment of an individual for competence certification.

It is my conviction that these Occupational Standards will play a great role towards development of competent human resource for the ICT sector's growth and development.

**PRINCIPAL SECRETARY, VOCATIONAL AND TECHNICAL TRAINING
MINISTRY OF EDUCATION**

PREFACE

Kenya Vision 2030 aims to transform the country into a newly industrializing, “middle-income country providing a high-quality life to all its citizens by the year 2030”. Kenya intends to create a globally competitive and adaptive human resource base to meet the requirements of a rapidly industrializing economy through life-long education and training. TVET has a responsibility of facilitating the process of inculcating knowledge, skills and attitudes necessary for catapulting the nation to a globally competitive country, hence the paradigm shift to embrace Competency Based Education and Training (CBET).

The Technical and Vocational Education and Training Act No. 29 of 2013 and Sessional Paper No. 4 of 2016 on Reforming Education and Training in Kenya, emphasized the need to reform curriculum development, assessment and certification. This called for a shift to CBET in order to address the mismatch between skills acquired through training and skills needed by industry as well as increase the global competitiveness of Kenyan labour force.

The TVET Curriculum Development, Assessment and Certification Council (TVET CDACC), in conjunction with ICT Sector Skills Advisory Committee (SSAC) have developed these Occupational Standards for ICT technicians. These standards will be the bases for development of competency based curriculum for ICT technician Level 4.

This curriculum has been developed following the CBET framework policy; the CBETA Standards and guidelines provided by the TVET Authority and the Kenya National Qualification framework designed by the Kenya National Qualification Authority.

The curriculum is designed and organized with an outline of learning outcomes; suggested delivery methods, training/learning resources and methods of assessing the trainee’s achievement. The curriculum is competency-based and allows multiple entry and exit to the course.

I am grateful to the Council Members, Council Secretariat, ICT SSAC, expert workers and all those who participated in the development of these Occupational Standards.

**Prof. CHARLES M. M. ONDIEKI, PhD, FIET (K), Con. EngTech.
CHAIRMAN, TVET CDACC**

ACKNOWLEDGMENT

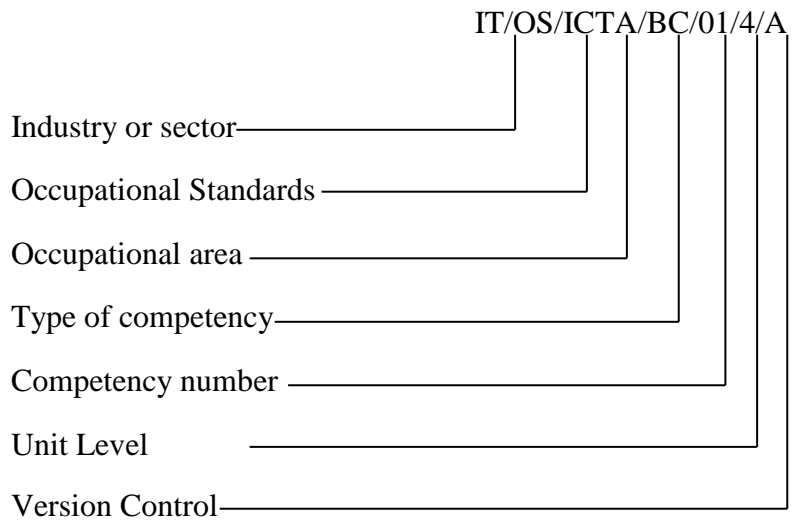
These Occupational Standards were developed through combined effort of various stakeholders from private and public organizations. I am thankful to the management of these organizations for allowing their staff to participate in this course. I wish to acknowledge the invaluable contribution of industry players who provided inputs towards the development of these Standards.

I thank TVET Curriculum Development, Assessment and Certification Council (TVET CDACC) for providing guidance on the development of these Standards. My gratitude goes to Automotive Sector Skills Advisory Committee (SSAC) members for their contribution to the development of these Standards. I thank all the individuals and organizations who participated in the validation of these Standards.

I acknowledge all other institutions which in one way or another contributed to the development of these Standards.

Dr. LAWRENCE GUANTAI M'ITONGA, PhD
COUNCIL SECRETARY/CEO

KEY TO UNIT CODE



ACRONYMS

BC	: Basic Competency
CDACC	: Curriculum Development, Assessment and Certification Council
CR	: Core Competency
ICT	: Information Communication Technology
KNQA	: Kenya National Qualifications Authority
OS	: Occupational Standards
OSHA	: Occupation Safety and Health Act
OSHS	: Occupation Safety and Health Standards
PPE	: Personal Protective Equipment
SSAC	: Sector Skills Advisory Committee
TVET	: Technical and Vocational Education and Training

TABLE OF CONTENTS

FOREWORD	ii
PREFACE	iii
ACKNOWLEDGMENT	iv
KEY TO UNIT CODE	v
ACRONYMS	vi
COURSE OVERVIEW	viii
BASIC UNITS OF LEARNING	1
COMMUNICATION SKILLS	2
NUMERACY SKILLS	5
DIGITAL LITERACY	9
ENTREPRENEURIAL SKILLS	11
EMPLOYABILITY SKILLS.....	15
ENVIRONMENTAL LITERACY	18
OCCUPATIONAL SAFETY AND HEALTH PRACTICES	21
CORE UNITS OF LEARNING	23
USAGE OF ICT DEVICES.....	24
COMPUTER SOFTWARE INSTALLATION	30
COMPUTER REPAIR AND MAINTENANCE.....	33
MICROSOFT OFFICE TOOLS	36
INTERNET SKILLS	41

COURSE OVERVIEW

ICT Level 4 consists of competencies that an individual must achieve to ICT sector in an effective manner and cost saving. It entails usage of ICT devices, installation of software, repairing and maintaining of a computer, application of Microsoft Office tools and usage of the Internet.

This qualification consists of the following basic and core competencies:

BASIC UNITS OF LEARNING

Unit of Learning Code	Unit of Learning Title	Duration in Hours	Credit factor
IT/CU/ICTA/BC/01/4/A	Communication skills	20	2
IT/CU/ICTA/BC/02/4/A	Numeracy skills	30	3
IT/CU/ICTA/BC/03/4/A	Digital literacy	30	3
IT/CU/ICTA/BC/04/4/A	Entrepreneurial skills	60	6
IT/CU/ICTA/BC/05/4/A	Employability skills	30	3
IT/CU/ICTA/BC/06/4/A	Environmental literacy	20	2
IT/CU/ICTA/BC/07/4/A	Occupational safety and health practices	20	2
TOTAL		210	21

CORE UNITS OF LEARNING

Unit Code	Unit Title	Duration in Hours	Credit factor
IT/CU/ICTA/CR/01/4/A	Usage of ICT devices	80	8
IT/CU/ICTA/CR/02/4/A	Software Installation	80	8
IT/CU/ICTA/CR/03/4/A	Repair and Maintenance	100	10
IT/CU/ICTA/CR/04/4/A	Application of Microsoft Office tools	80	8
IT/CU/ICTA/CR/05/4/A	Usage of the Internet	80	8
	Industrial Attachment	300	30

TOTAL	720	72
GRAND TOTAL	930	93

The core units of learning are independent of each other and may be taken independently.

The total duration of the course is **930** hours including industrial attachment.

Field Attachment

It is envisaged that the trainee will have undergone a field training and assessment with a recognized ICT firm as a prerequisite for completion of this training course. At least 300 hours (8 weeks) should be spent on a supervised and assessed field attachment.

Entry Requirements

An individual entering this course should have any of the following minimum requirements:

- a) Attained KCSE with mean grade of E
- Or**
- b) Information Communication Technology (ICT) National Certificate Qualification Level 3
- Or**
- c) Equivalent qualifications in a related field as determined by Kenya National Qualifications Authority (KNQA)

Assessment

The course will be assessed at two levels: internally and externally. Internal assessment is continuous and is conducted by the trainer who is monitored by an accredited internal verifier while external assessment is conducted by accredited external assessors appointed by TVET CDACC.

Certification

A candidate will be issued with a national certificate of competency on demonstration of competence in a unit of competency. To attain the national qualification ICT Assistant level 4, the candidate must demonstrate competence in all the units of competency as given in qualification pack. These certificates will be issued by TVET CDACC in conjunction with training provider.

BASIC UNITS OF LEARNING

COMMUNICATION SKILLS

UNIT CODE: ICT/CU/ICTA/BC/01/4/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Demonstrate communication skills

Duration of Unit: 20 Hours

Unit Description

This unit describes the competencies required to lead in the dissemination and discussion of ideas, information and issues in the workplace.

Summary of Learning Outcomes

1. Obtain and convey workplace information
2. Complete relevant work-related documents
3. Communicate information about workplace processes
4. Lead workplace discussion
5. Identify and communicate issues arising in the workplace

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Obtain and convey workplace information	<ul style="list-style-type: none">• Communication process• Modes of communication• Medium of communication• Effective communication• Barriers to communication• Flow of communication• Sources of information• Types of questions• Organizational policies• Workplace etiquette• Ethical work practices in handling communication	<ul style="list-style-type: none">• Observation• Interview• Third party reports
2. Complete relevant work-related documents	<ul style="list-style-type: none">• Types and purposes of workplace documents and forms• Methods used in filling forms and documents	<ul style="list-style-type: none">• Observation• Interview• Third party reports

	<ul style="list-style-type: none"> • Recording workplace data • Process of distributing workplace forms and documents • Report writing • Types of workplace reports 	
3. Communicate information about workplace processes	<ul style="list-style-type: none"> • Communication process • Modes of communication • Medium of communication • Effective communication • Barriers to communication • Flow of communication • Sources of information • Organizational policies • Organization requirements for written and electronic communication methods • Report writing • Effective questioning techniques (clarifying and probing) • Workplace etiquette • Ethical work practices in handling communication 	<ul style="list-style-type: none"> • Observation • Interview • Portfolio
4. Lead workplace discussion	<ul style="list-style-type: none"> • Methods of discussion e.g. <ul style="list-style-type: none"> ✓ Coordination meetings ✓ Toolbox discussion ✓ Peer-to-peer discussion • Solicitation of response 	<ul style="list-style-type: none"> • Observation • Interview • Third party reports
5. Identify and communicate issues arising in the workplace	<ul style="list-style-type: none"> • Identification of problems and issues • Organizing information on problems and issues • Relating problems and issues • Communication barriers affecting workplace discussions 	<ul style="list-style-type: none"> • Observation • Interview • Portfolio

Suggested Delivery Methods

- Discussion
- Role play

- Brainstorming

Recommended Resources

- Desktop computers/laptops
- Internet connection
- Projectors
- Telephone
- Report writing templates

NUMERACY SKILLS

UNIT CODE: ICT/CU/ICTA/BC/02/4/A

Relationship to Occupational Standards:

This unit addresses the unit of competency: Demonstrate numeracy skills

Duration of Unit: 25 hours

Unit Description

This unit describes the competencies required by a worker in order to competently Identify and use whole numbers and simple fractions, decimals and percentages; Identify, measure and estimate familiar quantities for work, Read and use familiar maps, plans and diagrams for work, Identify and describe common 2D and some 3D shapes for work, Construct simple tables and graphs for work using familiar data, Identify and interpret information in familiar tables, graphs and charts for work.

Summary of Learning Outcomes

1. Identify and use whole numbers and simple fractions, decimals and percentages for work
2. Identify, measure and estimate familiar quantities for work
3. Read and use familiar maps, plans and diagrams for work
4. Identify and describe common 2D and some 3D shapes for work
5. Construct simple tables and graphs for work using familiar data
6. Identify and interpret information in familiar tables, graphs and charts for work

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Identify and use whole numbers and simple fractions, decimals and percentages for work	<ul style="list-style-type: none">• Whole numbers• Simple fractions• Decimals• Percentages• Sizes• Problem solving methods• calculations using the 4 operations• Recording and communicating numerical information	<ul style="list-style-type: none">• Oral• Written• Practical test• Observation
2. Identify, measure and estimate familiar quantities for work	<ul style="list-style-type: none">• Measurement information• Units of measurement	<ul style="list-style-type: none">• Oral• Written

	<ul style="list-style-type: none"> • Estimate familiar and simple amounts • Selection of appropriate measuring equipment • Calculate using familiar units of measurement • Check measurements and results against estimates • Using informal and some formal mathematical and general language • Record or report results 	<ul style="list-style-type: none"> • Practical test • Observation
3. Read and use familiar maps, plans and diagrams for work	<ul style="list-style-type: none"> • Maps, plans and diagrams • Locate items and places in familiar maps, plans and diagrams • Recognize common symbols and keys in familiar maps, plans and diagrams • Direction and location of objects, or route or places • Use of informal and some formal oral mathematical language and symbols 	<ul style="list-style-type: none"> • Oral • Written • Practical test • Observation
4. Identify and describe common 2D and some 3D shapes for work	<ul style="list-style-type: none"> • Common 2D shapes and 3D shapes • Classification of common 2D shapes and designs • Description of Use informal and some formal language to describe common two-dimensional shapes and some common three-dimensional shapes • Construction of common 2D shapes • Match common 3D shapes to their 2D sketches or nets 	<ul style="list-style-type: none"> • Oral • Written • Practical test • Observation

<p>5. Construct simple tables and graphs for work using familiar data</p>	<ul style="list-style-type: none"> • Types of graphs • Determination of data to be collected • Selection of data collection method • Collection of data • Determination of variables from the data collected • Order and collate data • Construct a table and enter data • Construct a graph using data from table • Check results • Report or discuss graph information related to work using informal and some formal mathematical and general language 	<ul style="list-style-type: none"> • Oral • Written • Practical test • Observation
<p>6. Identify and interpret information in familiar tables, graphs and charts for work</p>	<ul style="list-style-type: none"> • Tables construction and labeling • i.e. title, headings, rows and columns • Interpreting information and data in simple tables • Relaying information of relevant workplace tasks on/in a table • Identify familiar graphs and charts in familiar texts and contexts • Locate title, labels, axes, scale and key from familiar graphs and charts • Identify and interpret information and data in familiar graphs and charts • Relate information to relevant workplace tasks 	<ul style="list-style-type: none"> • Oral • Written • Practical test • Observation

Suggested Delivery Methods

- Instructor led facilitation of theory
- Practical demonstration of tasks by trainer
- Practice by trainees/ role play
- Discussion
- Observations and comments and corrections by trainers

Recommended Resources

- Standard operating and/or other workplace procedures manuals
- Specific job procedures manuals
- Mathematical tables

DIGITAL LITERACY

UNIT CODE: ICT/CU/ICTA/BC/02/4/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Demonstrate digital literacy

Duration of Unit: 35 hours

Unit Description

This unit covers the competencies required to effectively demonstrate digital literacy in a working environment. It entails identifying and using digital devices such as smartphones, tablets, laptops and desktop PCs for purposes of communication and performing work related tasks at the work place.

Summary of Learning Outcomes

1. Identify computer hardware and software
2. Apply security measures to data, hardware and software
3. Apply computer software in solving tasks
4. Apply internet and email in communication at workplace

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Identify computer hardware and software	<ul style="list-style-type: none">• Meaning of a computer• Functions of a computer• Components of a computer• Classification of computers	<ul style="list-style-type: none">• Written• Oral• Observation
2. Apply security measures to data, hardware and software	<ul style="list-style-type: none">• Data security and control• Security threats and control measures• Types of computer crimes• Detection and protection against computer crimes	<ul style="list-style-type: none">• Written tests• Oral presentation• Observation• Projects
3. Apply computer software in solving tasks	<ul style="list-style-type: none">• Operating system• eWord processing• Spread sheets• Data base	<ul style="list-style-type: none">• Oral questioning• Observation• Project

4. Apply internet and email in communication at workplace	<ul style="list-style-type: none"> • Computer networks • Uses of internet • Electronic mail (e-mail) concept 	<ul style="list-style-type: none"> • Oral questioning • Observation • Oral presentation • Written report
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Suggested Delivery Methods

- Instructor led facilitation of theory
- Demonstration by trainer
- Practical work by trainee
- Viewing of related videos
- Project
- Group discussions

Recommended Resources

- Desk top computers
- Laptop computers
- Other digital devices
- Printers
- Storage devices
- Internet access
- Computer software

ENTREPRENEURIAL SKILLS

UNIT CODE: ICT/CU/ICTA/BC/03/4/A

Relationship to occupational standards

This unit addresses the unit of competency: Demonstrate entrepreneurial skills

Duration of unit: 60 hours

Unit description

This unit describes the competencies critical to demonstration of entrepreneurial skills. It includes creating and maintaining small scale business, establishing small scale business customer base, managing and growing a small business.

Summary of Learning Outcomes

1. Create and maintain small scale business
2. Establish small scale business customer base
3. Manage small scale business
4. Grow/ expand small scale business

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Create and maintain small scale business	<ul style="list-style-type: none">• Starting a small business• Legal regulatory requirements in starting a small business• SWOT/ PESTEL analysis• Conducting market/industry survey• Generation and evaluation of business ideas• Matching competencies with business opportunities• Forms of business ownership• Location of a small business• Legal and regulatory requirement	<ul style="list-style-type: none">• Observation• Case studies• Individual/group assignments• projects• Written• Oral

	<ul style="list-style-type: none"> • Resources required to start a small business • Common terminologies in entrepreneurship • Entrepreneurship in national development • Self-employment • Formal and informal employment • Entrepreneurial culture • Myths associated with entrepreneurship • Types, characteristics, qualities & role of entrepreneurs • History, development and importance of entrepreneurship • Theories of entrepreneurship • Quality assurance for small businesses • Policies and procedures on occupational safety and health and environmental concerns 	
<p>2. Establish small scale business customer base</p>	<ul style="list-style-type: none"> • Good staff/workers and customer relations • Marketing strategy • Identifying and maintain new customers and markets • Product/ service promotions • Products / services diversification • SWOT / PESTEL analysis • Conducting a business survey • Generating Business ideas • Business opportunities 	<ul style="list-style-type: none"> • Observation • Case studies • Individual/group assignments • projects • Written • Oral

<p>3. Manage small scale business</p>	<ul style="list-style-type: none"> • Organization of a small business • Small business' business plan • Marketing for small businesses • Managing finances for small business • Production/ operation process for goods/services • Small business records management • Book keeping and auditing for small businesses • Business support services • Small business resources mobilization and utilization • Basic business social responsibility • Management of small business • Word processing concepts in small business management • Computer application software • Monitoring and controlling business operations 	<ul style="list-style-type: none"> • Oral • Observation • Case studies • Individual/group assignments • projects • Written
<p>4. Grow/expand small scale business</p>	<ul style="list-style-type: none"> • Methods of growing small business • Resources for growing small business • Small business growth plan • Computer software in business development • ICT and business growth 	<ul style="list-style-type: none"> • Observation • Case studies • Individual/group assignments • projects • Written

Suggested Delivery Methods

- Instructor led facilitation of theory
- Demonstration by trainer
- Practice by trainee

- Role play
- Case study

Recommended Resources

- Case studies for small businesses
- Business plan templates
- Lap top/ desk top computer
- Internet
- Telephone
- Writing materials

EMPLOYABILITY SKILLS

UNIT CODE: ICT/CU/ICTA/BC/04/4/A

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Demonstrate employability skills

Duration of Unit: 30 hours

Unit Description

This unit covers competencies required to demonstrate employability skills. It involves conducting self-management, demonstrating critical safe work habits, demonstrating workplace learning and workplace ethics.

Summary of Learning Outcomes

1. Conduct self-management
2. Demonstrate critical safe work habits
3. Demonstrate workplace learning
4. Demonstrate workplace ethics

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Conduct self-management	<ul style="list-style-type: none">• Self-awareness• Formulating personal vision, mission and goals• Strategies for overcoming life challenges• Emotional intelligence• Assertiveness• Expressing personal thoughts, feelings and beliefs• Developing and maintaining high self-esteem• Developing and maintaining positive self-image• Articulating ideas and aspirations• Accountability and responsibility• Good work habits• Self-awareness• Self-development	<ul style="list-style-type: none">• Observation• Written• Oral interview• Third party report

	<ul style="list-style-type: none"> • Financial literacy • Healthy lifestyle practices 	
2. Demonstrate critical safe work habits	<ul style="list-style-type: none"> • Stress and stress management • Punctuality and time consciousness • Interpersonal communication • Sharing information • Leisure • Integrating personal objectives into organizational objectives • Resources utilization • Setting work priorities • HIV and AIDS • Drug and substance abuse • Handling emerging issues 	<ul style="list-style-type: none"> • Observation • Written • Oral interview • Third party report
3. Demonstrate workplace learning	<ul style="list-style-type: none"> • Personal training needs identification and assessment • Managing own learning • Contributing to the learning community at the workplace • Cultural aspects of work • Variety of learning context • Application of learning • Safe use of technology • Identifying opportunities • Workplace innovation • Performance improvement • Handling emerging issues • Future trends and concerns in learning 	<ul style="list-style-type: none"> • Observation • Oral interview • Written • Third party report
4. Demonstrate workplace ethics	<ul style="list-style-type: none"> • Meaning of ethics • Ethical perspectives • Principles of ethics • Values and beliefs • Ethical standards • Organization code of ethics • Common ethical dilemmas 	<ul style="list-style-type: none"> • Observation • Oral interview • Written • Third party report

	<ul style="list-style-type: none"> • Organization culture • Corruption, bribery and conflict of interest • Privacy and data protection • Diversity, harassment and mutual respect • Financial responsibility/accountability • Etiquette • Personal and professional integrity • Commitment to jurisdictional laws • Emerging issues in ethics 	
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Suggested Methods of Delivery

- Instructor lead facilitation of theory
- Demonstrations
- Simulation/Role play
- Group Discussion
- Presentations
- Projects
- Case studies
- Assignments

Recommended Resources

- Computers
- Stationery
- Charts
- Video clips
- Audio tapes
- Radio sets
- TV sets
- LCD projectors

ENVIRONMENTAL LITERACY

UNIT CODE: ICT/CU/ICTA/BC/05/4/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Demonstrate environmental literacy

Duration of Unit: 20 hours

Unit Description

This unit describes the competencies required to control environmental hazard, control environmental pollution, comply with workplace sustainable resource use and evaluate current practices in relation to resource usage.

Summary of Learning Outcomes

1. Control environmental hazard
2. Control environmental Pollution
3. Demonstrate sustainable resource use
4. Evaluate current practices in relation to resource usage

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Control environmental hazard	<ul style="list-style-type: none">• Purposes and content of Environmental Management and Coordination Act 1999• Purposes and content of Solid Waste Act• Storage methods for environmentally hazardous materials• Disposal methods of hazardous wastes• Types and uses of PPE in line with environmental regulations• Occupational Safety and Health Standards (OSHS)	<ul style="list-style-type: none">• Written questions• Oral questions• Observation of work procedures

<p>2. Control environmental Pollution control</p>	<ul style="list-style-type: none"> • Types of pollution • Environmental pollution control measures • Types of solid wastes • Procedures for solid waste management • Different types of noise pollution • Methods for minimizing noise pollution 	<ul style="list-style-type: none"> • Written questions • Oral questions • Observation of work procedures • Role play
<p>3. Demonstrate sustainable resource use</p>	<ul style="list-style-type: none"> • Types of resources • Techniques in measuring current usage of resources • Calculating current usage of resources • Methods for minimizing wastage • Waste management procedures • Principles of 3Rs (Reduce, Reuse, Recycle) • Methods for economizing or reducing resource consumption 	<ul style="list-style-type: none"> • Written questions • Oral questions • Observation of work procedures • Role play
<p>4. Evaluate current practices in relation to resource usage</p>	<ul style="list-style-type: none"> • Collection of information on environmental and resource efficiency systems and procedures, • Measurement and recording of current resource usage • Analysis and recording of current purchasing strategies. • Analysis of current work processes to access information and data • Identification of areas for improvement 	<ul style="list-style-type: none"> • Written questions • Oral questions • Observation of work procedures • Role play
<p>5. Identify Environmental legislations/conventions for environmental concerns</p>	<ul style="list-style-type: none"> • Environmental issues/concerns • Environmental legislations /conventions and local ordinances • Industrial standard /environmental practices • International Environmental Protocols (Montreal, Kyoto) 	<ul style="list-style-type: none"> • Written questions • Oral questions • Observation of work procedures

	<ul style="list-style-type: none">• Features of an environmental strategy	
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Suggested Delivery Methods

- Instructor led facilitation of theory
- Practical demonstration of tasks by trainer
- Practice by trainees/ role play
- Discussion
- Observations and comments and corrections by trainers

Recommended Resources

- Standard operating and/or other workplace procedures manuals
- Specific job procedures manuals
- Solid Waste Act
- Environmental Management and Coordination Act 1999
- Machine/equipment manufacturer’s specifications and instructions
- Personal Protective Equipment (PPE)

OCCUPATIONAL SAFETY AND HEALTH PRACTICES

UNIT CODE: ICT/CU/ICTA/BC/06/4/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Demonstrate Safety and Health Practices

Duration of Unit: 20 hours

Unit Description

This unit describes the competencies required to practice safety and health, and comply with OSH requirements relevant to work.

Summary of Learning Outcomes

1. Observe workplace procedures for hazards and risk prevention
2. Participate in arrangements for workplace safety and health maintenance

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Observe workplace procedures for hazards and risk prevention	<ul style="list-style-type: none">• Arrangement of work area and items in accordance with Company housekeeping procedures• Adherence to work standards and procedures• Application of preventive and control measures, including use of safety gears/PPE• Study and apply standards and procedures for incidents and emergencies.	<ul style="list-style-type: none">• Oral questions• Written questions• Observation of work procedures
2. Participate in arrangements for workplace safety and health maintenance	<ul style="list-style-type: none">• Participating in orientations on OSH requirements/regulations of tasks• Providing feedback on health, safety, and security concerns to appropriate personnel as required in a sufficiently detailed manner	<ul style="list-style-type: none">• Oral questions• Written tests• Practical test• Observation of practical work by trainees

	<ul style="list-style-type: none"> • Practice workplace procedures for reporting hazards, incidents, injuries and sickness • OSH requirements/ regulations and workplace safety and hazard control procedures are reviewed, and compliance reported to appropriate personnel • Identification of needed OSH-related trainings are proposed to appropriate personnel 	
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Suggested Delivery Methods

- Instructor led facilitation of theory
- Practical demonstration of tasks by trainer
- Practice by trainees/ role play
- Discussion
- Observations and comments and corrections by trainers

Recommended Resources

- Standard operating and/or other workplace procedures manuals
- Specific job procedures manuals
- Machine/equipment manufacturer’s specifications and instructions
- Personal Protective Equipment (PPE) e.g.
 - Mask
 - Face mask/shield
 - Safety boots
 - Safety harness
 - Arm/Hand guard, gloves
 - Eye protection (goggles, shield)
 - Hearing protection (ear muffs, ear plugs)
 - Hair Net/cap/bonnet
 - Hard hat
 - Face protection (mask, shield)
 - Apron/Gown/coverall/jump suit
 - Anti-static suits
 - High-visibility reflective vests

CORE UNITS OF LEARNING

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 health, safety and environmental issues in ICT
6. Identification of ICT security issues

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Identification of Computer components	<ul style="list-style-type: none">□ Definition of a hardware device□ Terminologies related to hardware devices.□ Hardware devices<ul style="list-style-type: none">✓ Input<ul style="list-style-type: none">▪ Mouse▪ Keyboard▪ Scanner▪ Digital camera▪ Microphones▪ Joysticks✓ Output	<ul style="list-style-type: none">• Practical• Oral questioning• Written test

	<ul style="list-style-type: none"> ▪ Monitor ▪ Printer ▪ Speakers ▪ Headsets ▪ Projector ✓ Desktop/Laptop ✓ Storage ✓ Memory □ Functions of hardware devices <ul style="list-style-type: none"> ✓ 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 <ul style="list-style-type: none"> ✓ Word processing ✓ Spreadsheet ✓ Database ✓ Multimedia ✓ Graphics □ Examples of Operating system software <ul style="list-style-type: none"> ✓ Ms DOS ✓ LINUX ✓ Windows ✓ Mac OS ✓ Android 	
2. Operating a Computer	<ul style="list-style-type: none"> □ Booting procedures <ul style="list-style-type: none"> ✓ Cold boot ✓ Warm boot □ Shut down procedures □ File Management Operations <ul style="list-style-type: none"> ✓ Cut 	<ul style="list-style-type: none"> • Practical • Observation • Written tests • Oral

	<ul style="list-style-type: none"> ✓ Copy ✓ Paste ✓ Rename 	
3.Computer networks	<ul style="list-style-type: none"> □ Define computer network □ Terminologies used in a network <ul style="list-style-type: none"> ✓ Node ✓ Host ✓ Server ✓ Client □ Components of network <ul style="list-style-type: none"> ✓ Computer ✓ Network devices (switch, hub, router etc) ✓ Communication channels □ Types of networks <ul style="list-style-type: none"> ✓ LAN ✓ WAN ✓ MAN ✓ WLAN □ Application areas of computer networks <ul style="list-style-type: none"> ✓ Resource sharing ✓ Communication ✓ Work distribution. 	<ul style="list-style-type: none"> • Practical • Observation • Written tests • Oral
4. Applications of ICT	<ul style="list-style-type: none"> □ ICT Terminologies <ul style="list-style-type: none"> ✓ Data ✓ Information ✓ ICT □ Definition of Components of ICT (People, Hardware, Software, Procedures, information and data) □ ICT applications areas <ul style="list-style-type: none"> ✓ Manufacturing ✓ Security ✓ Education ✓ Farming ✓ Hospitality 	<ul style="list-style-type: none"> • Written • Oral

	<ul style="list-style-type: none"> ✓ Medicine ✓ Banking ✓ Transportation ✓ Tourism ✓ Government <input type="checkbox"/> Benefits of ICT use <input type="checkbox"/> Challenges and opportunities of ICT use in society <input type="checkbox"/> Emerging trends and their causes 	
<p>Identify health, safety and environmental issues in ICT</p>	<ul style="list-style-type: none"> • ICT Health related problems • Workplace ergonomics • Safety related problems <input type="checkbox"/> Equipment safety issues (Appropriateness and maintenance) <input type="checkbox"/> Safe use and disposal of electronic equipment and materials • Environmental related problems <input type="checkbox"/> Environmental factors affecting human health and equipment functionality: Dust, temperature, humidity, Noise <input type="checkbox"/> Electronic Waste Management • Standards and guidelines for HSE care • Internal • Manufacturer 	<ul style="list-style-type: none"> • Practical • Oral • Observation • Written

	<ul style="list-style-type: none"> • Benefits of green ICT/Computing <ul style="list-style-type: none"> <input type="checkbox"/> Recycling electronics <input type="checkbox"/> Limiting printing and recycling paper <input type="checkbox"/> Purchasing from environmentally committed companies • Customising computer power management 	
Identify ICT security issues	<ul style="list-style-type: none"> <input type="checkbox"/> Define ICT security <input type="checkbox"/> Terminologies used in ICT <input type="checkbox"/> Goals of ICT security <ul style="list-style-type: none"> Confidentiality Integrity Availability <input type="checkbox"/> ICT assets to be secured <ul style="list-style-type: none"> ✓ Data ✓ Information ✓ Media ✓ Hardware ✓ Software <input type="checkbox"/> Advantages of ICT security <input type="checkbox"/> Types of security threats <input type="checkbox"/> Security control 	<ul style="list-style-type: none"> • 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

Tool. Software, internet
Equipment Computer Lcd projectors
Materials and supplies Materials <ul style="list-style-type: none">• Digital instructional material including online resources, DVDs and CD, stationary Supplies <ul style="list-style-type: none">• Power cable• Personal protective materials• Tonners and inks• UPS
Reference materials Manufacturers manuals

COMPUTER SOFTWARE INSTALLATION

UNIT CODE: ICT/CU/ICTA/CC/02/4/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Installation of Computer Software

Duration of Unit: 80 hours

Unit Description:

This unit describes the competencies required in installing computer software. It involves Identification of software to be installed, installation of the software, and configuration of the software, software change management, performing user training.

Summary of Learning Outcomes:

1. Identification of software to be installed
2. Install the software
3. Software change management
4. Conduct user training

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Identify the Software to be installed.	<ul style="list-style-type: none">□ Definition of software□ Classification of software Functionality□ Software Acquisition Methods Off the shelve Tailor made In-house development	<ul style="list-style-type: none">• Practical• Oral questioning• Written test
2. Install the software	<ul style="list-style-type: none">□ Define software installation□ Installation sources<ul style="list-style-type: none">✓ External hard drives✓ CD and DVD✓ Flash disk	<ul style="list-style-type: none">• Practical• Observation• Written tests

	<ul style="list-style-type: none"> ✓ Certified online sites ✓ Server based installation □ End user license agreement □ Software options □ Existing data backup and protection □ Software documentation 	
3. Software change management	<ul style="list-style-type: none"> □ Types of user needs requirements □ Software upgrading needs <ul style="list-style-type: none"> Functionality Skills Control □ Software functionality testing □ Software documentation 	<ul style="list-style-type: none"> • Practical • Observation • Written tests
4. Perform user training	<ul style="list-style-type: none"> □ Keys to Developing an End User Training Plan <ul style="list-style-type: none"> ✓ Determine user skill set ✓ Creating a training program ✓ Setting training goals ✓ Training delivery methods ✓ Assessing end-user needs ✓ Signing off □ Training feedback elements <ul style="list-style-type: none"> ✓ Time ✓ accuracy 	<ul style="list-style-type: none"> • Practical • Oral • Written tests • Learner portfolio of evidence.

Suggested Methods of Delivery

- Presentations and practical demonstrations by trainer;
- Guided learner activities and research to develop underpinning knowledge;
- Supervised activities and projects in a workshop;

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

Tools

Software

Equipment

Computer, UPS

Materials and supplies

- Digital instructional material including DVDs and CDs;
- Stationery

Reference materials

Manufacturers manuals

COMPUTER REPAIR AND MAINTENANCE

UNIT CODE: ICT/CU/ICTA/CC/03/4/A

Relationship to Occupational Standards

This unit addresses the unit of competency: **Perform Computer Repair and Maintenance**

Duration of Unit: 100hours

Unit Description:

This unit specifies competencies required to perform computer repair and Maintenance. It includes, assemble and disassembling faulty components, performing troubleshooting repair/replace and reassembling components, testing computer functionality and upgrading computer software/hardware.

Summary of Learning Outcomes:

1. Assemble and Disassemble Computer Components
2. Troubleshoot Computer Components
3. Repair/replace and reassemble components
4. Test computer/component functionality
5. Upgrade computer hardware

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Method
1. Disassemble faulty components	<ul style="list-style-type: none"><input type="checkbox"/> Tools for disassembling<input type="checkbox"/> Procedures and techniques for disassembling<input type="checkbox"/> Repair or replace and reassemble components	<ul style="list-style-type: none">• Practical exercises• Oral questioning• Written test• Learner portfolio of evidence.
2. Perform troubleshooting	<ul style="list-style-type: none"><input type="checkbox"/> Identification of Computer parts	<ul style="list-style-type: none">• Practical exercises• Oral questioning

	<input type="checkbox"/> Assembling of computer maintenance tools <input type="checkbox"/> Theory of probable cause <input type="checkbox"/> Assembling and disassembling process <input type="checkbox"/> Test of theory of probable cause <input type="checkbox"/> Problem identification <input type="checkbox"/> Appropriate solutions	<ul style="list-style-type: none"> • Written test • Learner portfolio of evidence.
3. Repair/Replace and reassemble components	<input type="checkbox"/> Determine components to replace or repair <input type="checkbox"/> Procedures and Techniques for reassembling <input type="checkbox"/> Component testing <input type="checkbox"/> Repair/replace report	<ul style="list-style-type: none"> • Practical exercises • Oral questioning • Written test • Learner portfolio of evidence.
4. Test computer functionality	<input type="checkbox"/> Identify computer testing tools <input type="checkbox"/> Testing techniques are identified <input type="checkbox"/> Perform computer test functionality <input type="checkbox"/> status report	<ul style="list-style-type: none"> • Practical exercises • Oral questioning • Written test • Learner portfolio of evidence.
5. Upgrade computer software/hardware	<input type="checkbox"/> Determine Reasons of upgrading <input type="checkbox"/> Identify procedures and techniques for upgrading <input type="checkbox"/> Test functionality of the upgraded software/hardware	<ul style="list-style-type: none"> • Practical exercises • Oral questioning • Written test • Learner portfolio of evidence

Suggested Methods of Delivery

- Presentations and practical demonstrations by trainer;
- Guided learner activities and research to develop underpinning knowledge;
- Supervised activities and projects in a workshop;

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

Tools

- Straight-head screwdriver, large and small.
- Phillips-head screwdriver, large and small.
- Tweezers or part retriever.
- Needle-nosed pliers.
- Wire cutters.
- Chip extractor.
- Hex wrench set.
- Torx screwdriver

Equipment

- Computer
- Tool box

Materials and supplies

Digital instructional material including DVDs and CDs

Consumables for service and repair of computer including:

- Cleaning materials
- Hand cleaner
- Dusters

Reference materials

Manufacturers manuals

MICROSOFT OFFICE TOOLS

UNIT CODE: ICT/CU/ICTA/CC/04/4/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Applying Microsoft Office tools.

Duration of Unit: 80 hours

Unit Description:

This unit describes the competencies required in applying word processing using Ms Word, applying spreadsheet using Ms Excel, applying database management using Ms Access, applying graphic presentation using Ms PowerPoint and managing personal information using Ms Outlook.

Summary of Learning Outcomes:

1. Apply word processing using Ms Word
2. Apply spreadsheet using Ms Excel
3. Apply database management using Ms Access
4. Apply graphic presentation using Ms PowerPoint
5. Manage personal information using Ms Outlook

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Apply word processing using Ms Word	<ul style="list-style-type: none">□ Definition of a word Processor□ Features of a word processor<ul style="list-style-type: none">✓ Creating documents✓ Editing documents✓ Formatting text✓ Creating and editing tables✓ Grammar and spell checking✓ Mail merging✓ Saving documents✓ Printing documents□ Features of Ms Word Interface<ul style="list-style-type: none">✓ Ribbon	<ul style="list-style-type: none">• Practical exercises• Oral questioning• Written test

	<ul style="list-style-type: none"> ▪ Tabs ▪ Commands ▪ Command groups ✓ Shortcut menu ✓ Quick access toolbar ✓ Editing window ✓ Document views □ Creating, formatting and saving a document <ul style="list-style-type: none"> ✓ Create a new document ✓ Modifying text ✓ Different views in word □ Set up a document <ul style="list-style-type: none"> ✓ Layout ✓ Adjust margins ✓ Header and footer □ Add graphics to an Ms Word document <ul style="list-style-type: none"> ✓ Insert ClipArt Images ✓ Insert File images ✓ Move images ✓ Delete images ✓ Text wrapping ✓ Alignment □ Shapes and effects <ul style="list-style-type: none"> ✓ Create lines and arrows ✓ Insert shapes ✓ Add text boxes ✓ Insert WordArt ✓ Shadow effects ✓ Add Borders to a picture ✓ Shape fill □ Add and format table of contents □ Proofing tools <ul style="list-style-type: none"> ✓ Spell check ✓ Thesaurus □ Inserting and modifying tables □ Previewing and printing a document 	
<p>2. Apply Spreadsheets using Ms Excel</p>	<ul style="list-style-type: none"> □ Definition of a spreadsheet □ Features of a spreadsheet <ul style="list-style-type: none"> ✓ Data formatting 	<ul style="list-style-type: none"> • Practical exercises • Oral questioning

	<ul style="list-style-type: none"> ✓ Data analysis ✓ Visualising using Graphs and charts ✓ Processing data □ Features of Ms Excel Interface <ul style="list-style-type: none"> ✓ Ribbon <ul style="list-style-type: none"> ▪ Tabs ▪ Commands ▪ Command groups ✓ Shortcut menu ✓ Worksheet ✓ Formula bar □ Worksheet creation □ Worksheet formatting □ Processing data <ul style="list-style-type: none"> ✓ Simple formulas ✓ Functions □ Data organization <ul style="list-style-type: none"> ✓ Sorting data ✓ Filtering data □ Working with charts <ul style="list-style-type: none"> ✓ Types of charts <ul style="list-style-type: none"> ▪ Column ▪ Line ▪ Pie ▪ Bar ✓ Formatting and editing charts □ Print workbooks <ul style="list-style-type: none"> ✓ Choose a print area ✓ Fitting and scaling content 	<ul style="list-style-type: none"> • Written test
<p>3. Apply Database management using Ms Access</p>	<ul style="list-style-type: none"> □ Definition of a Database Management System □ Features of a Database Management System <ul style="list-style-type: none"> ✓ Data storage ✓ Querying ✓ Reporting □ Features of Ms Access interface <ul style="list-style-type: none"> ✓ Tabs ✓ Ribbon layout 	<ul style="list-style-type: none"> • Practical exercises • Oral questioning • Written test

	<ul style="list-style-type: none"> ✓ Navigation pane ✓ Workspace ✓ Quick access ✓ Toolbar □ Creating a database <ul style="list-style-type: none"> ✓ Create a table ✓ Create a form ✓ Creating a Query ✓ Creating a report □ Manipulating database objects □ Print reports 	
4. Apply Presentation using Ms PowerPoint	<ul style="list-style-type: none"> □ Definition of a presentation software □ Features of a presentation software <ul style="list-style-type: none"> ✓ ICTides ✓ Handouts ✓ Multimedia ✓ Transition effects □ Features of Ms PowerPoint Interface <ul style="list-style-type: none"> ✓ Ribbon ✓ Quick access toolbar ✓ Tab ✓ ICTide pane ✓ Notes pane ✓ ICTides thumbnail ✓ ICTides view section □ Creating ICTides <ul style="list-style-type: none"> ✓ Insert various ICTide elements (text, pictures, tables, charts, video, audio clips, hyperlinks) □ Create PowerPoint presentation using master ICTide □ Adding presenter notes □ Using animation and transition effects □ Printing presentation handouts 	<ul style="list-style-type: none"> • Practical exercises • Oral questioning • Written test
5. Manage Personal Information using Ms Outlook	<ul style="list-style-type: none"> □ Definition of an email client □ Features of an email client <ul style="list-style-type: none"> ✓ Composing messages ✓ Managing messages ✓ Managing calendar 	<ul style="list-style-type: none"> • Practical exercises • Oral questioning • Written test

	<ul style="list-style-type: none"> ✓ Managing Contacts ✓ Managing tasks, meetings and appointments □ Features of Ms Outlook Interface <ul style="list-style-type: none"> ✓ Quick access tool bar ✓ Tabs ✓ Ribbon layout ✓ Navigation pane ✓ Active window. □ Composing, Retrieving and Responding to messages <ul style="list-style-type: none"> ✓ Creating an email message ✓ Spelling and grammar ✓ Content formatting ✓ File attachments ✓ Customising reading options ✓ Downloading attachments □ Organisation of personal information <ul style="list-style-type: none"> ✓ Managing appointments ✓ Managing meetings □ Customising Outlook environment <ul style="list-style-type: none"> ✓ Customising the interface ✓ Creating quick steps ✓ Creating rules □ Printing <ul style="list-style-type: none"> ✓ Calendars ✓ Emails 	
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Suggested Methods of Delivery

- Presentations and practical demonstrations by trainer;
- Guided learner activities and research to develop underpinning knowledge;
- Supervised activities and projects in a workshop;

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

<p>Tools</p> <ul style="list-style-type: none"> □ MS Outlook
<p>Equipment</p> <ul style="list-style-type: none"> □ Computer □ Printer □ LCD Projector
<p>Materials and supplies</p> <ul style="list-style-type: none"> • Digital instructional material including DVDs and CDs; • Stationery
<p>Reference materials</p> <p>Software manuals</p>

INTERNET SKILLS

UNIT CODE: ICT/CU/ICTA/CC/05/4/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Understand the Internet

Duration of Unit: 80 Hours

Unit Description

This unit covers the competencies required to understand how internet communication and browsing is done. It involves defining internet terminologies, identifying requirements for

internet connectivity, identifying internet access and web browsing techniques and identifying application areas for the internet.

Summary of Learning Outcomes

1. Explain fundamental concepts of Internet connectivity and application
2. Demonstrate ability to use a web browser to provide and customize access to preference
3. Select a suitable search engine to find information
4. Conduct online communication effectively and safely

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Explain fundamental concepts of Internet connectivity and application	<ul style="list-style-type: none"> ❑ Definition of Internet terminologies. ❑ How the internet works ❑ Uses of the Internet ❑ Internet connectivity requirements. ❑ Impacts of using the Internet 	<ul style="list-style-type: none"> ○ Oral questioning ○ Observation ○ Written test
2. Demonstrate ability to use a web browser to provide and customise access to preference	<ul style="list-style-type: none"> ❑ The world wide web concept ❑ Universal Resource Locators (URLs) ❑ Internet Domains <ul style="list-style-type: none"> ✓ Parts of a domain ✓ Choosing a domain extension (.com, .net, .org, .ac, .edu,.co,.gov) ❑ Purpose of a web browser ❑ Comparison of various web browsers <ul style="list-style-type: none"> ✓ Google Chrome ✓ Mozilla Firefox ✓ Opera ✓ Safari ✓ Internet Explorer ❑ Common web browser features <ul style="list-style-type: none"> ✓ Navigation, Stop button, Refresh button, Home button, Book mark button, History 	<ul style="list-style-type: none"> ● Oral questioning ● Observation ● Written test ● Practical test

	<ul style="list-style-type: none"> ✓ Address bar ✓ Tabbed browsing □ Using a browser <ul style="list-style-type: none"> ✓ Opening/closing a browser ✓ Entering a URL in the address bar ✓ Refreshing a web page, stopping a web page downloading. ✓ Activating a hyperlink. ✓ Opening a web page in a new tab, new window. ✓ Opening, closing tabs, windows. Switching between tabs, windows. ✓ Navigating between pages ✓ Completing, submitting and resetting a web-based form ✓ Using the browser history □ Customization of web browser <ul style="list-style-type: none"> ✓ Appearance settings: Display/hide built in toolbars, fonts ✓ Deleting history/temporary files ✓ Setting the default home page ✓ Synching email accounts with browser activities ✓ Start-up options ✓ Allowing and blocking popups and cookies ✓ Adding, deleting and showing favourites/bookmarks ✓ Privacy settings ✓ Download location settings ✓ Language options □ Web outputs 	
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	<ul style="list-style-type: none"> ✓ Download/save files to a location ✓ Copy web page contents, URLs to a document, email ✓ Previewing and printing a webpage 	
<p>3. Demonstrate ability to effectively search and evaluate web content.</p>	<ul style="list-style-type: none"> □ Purpose of search engines □ Comparisons of various search engines <ul style="list-style-type: none"> ✓ Google ✓ Bing ✓ Yahoo ✓ Ask.com ✓ Duckduckgo ✓ AOL □ Tips for effective use of a search engine <ul style="list-style-type: none"> ✓ Unique, specific terms ✓ Narrowing and expanding search using minus and addition operator ✓ Exact phrases using quotation marks ✓ Use non common words and pictures ✓ Boolean expressions (AND, OR) ✓ Maximising autocomplete ✓ Using browser history □ Factors that determine the credibility of a web content <ul style="list-style-type: none"> ✓ SICT ✓ Author ✓ Up-to-dateness ✓ References □ Downloading and uploading files <ul style="list-style-type: none"> ✓ File format ✓ File size ✓ Inter-operability 	<ul style="list-style-type: none"> • Oral questioning • Observation • Written test • Practical test

<p>4. Conduct online communication effectively and safely</p>	<ul style="list-style-type: none"> □ Communication tools <ul style="list-style-type: none"> ✓ Email ✓ Social media ✓ Instant Messaging (IM) (WhatsApp, Skype) ✓ Short Message Services (SMS) ✓ Multimedia Message Service (MMS) □ Creation and customization of User accounts in social online Communication platforms. <ul style="list-style-type: none"> ✓ Accounts and password ✓ Profile setting □ Best practice when using electronic communication <ul style="list-style-type: none"> ✓ Clarity ✓ Non circulation of inappropriate content ✓ Accuracy of grammar and spellings ✓ Courtesy ✓ Non disclose of personal details ✓ Verifying recipient list ✓ Non circulation of 	<ul style="list-style-type: none"> • Oral questioning • Observation • Written test • Practical test
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Suggested Delivery Methods

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

Recommended Resources

Tools

- Internet
- Browser

Equipment

- Computer
- LCD projectors
- Printer

Materials and supplies

- Materials
 - ✓ Stationery
 - ✓ Digital instructional material including online resources, DVDs and CDs

Reference materials

- Software manuals