Ethiopian TVET-System

Curriculum

IT support service level II

Based on
Occupational Standard (OS)

Preface

The reformed TVET-System is an outcome-based system. It utilizes the needs of the labor market and occupational requirements from the world of work as the benchmark and standard for TVET delivery. The requirements from the world of work are analyzed and documented – taking into account international benchmarking – as occupational standards (OS).

In the reformed TVET-System, curricula and curriculum development play an important role with regard to quality driven TVET-Delivery. Curricula help to facilitate the learning process in a way, that trainees acquire the set of occupational competences (skills, knowledge and attitude) required at the working place and defined in the occupational standards (OS).

This curriculum has been developed by a group of experts/Instructors from different TVET colleges in various Regions based on the occupational standard. It has been designed and developed to be used uniformly by all colleges that are under TVET system.

The curriculum development process has been actively supported and facilitated by the Federal TVET Bureau in line with one of its mandates to provide technical support to the regions.

TVET-Program Design

1.1. TVET-Program Title: IT support service Level II

1.2. TVET-Program Description

The Program is designed to develop the necessary knowledge, skills and attitude of the trainees to the standard required by the occupation. The contents of this program are in line with the occupational standard. Trainees who successfully completed the Program will be qualified to work as an **IT support service technician** with competencies elaborated in the respective OS. Graduates of the program will have the required qualification to work in the **Economic Infrastructure sector** in the field of **IT support service**.

The prime objective of this training program is to equip the trainees with the identified competences specified in the OS. Graduates are therefore, expected to Operate Database Application, Update and Document Operational Procedures, Administrate Network and Hardware Peripherals, Care for Network and Computer Hardware, Access and Use Internet, Implement Maintenance Procedures, Maintain Equipment and Consumables, Apply Problem Solving Techniques to Routine Malfunction, Participate in Workplace Communication, Work in Team Environment, Develop Business Practice, Standardizing and Sustaining 3S accordance with the performance criteria described in the OS.

1.3. TVET-Program Learning Outcomes

The expected outputs of this program are the acquisition and implementation of the following units of competence –

EIS ITS2 01 0811	Operate Database Application
EIS ITS2 02 0811	Update and Document Operational Procedures
EIS ITS2 03 0811	Administrate Network and Hardware Peripherals
EIS ITS2 04 0811	Care for Network and Computer Hardware
EIS ITS2 05 0811	Access and Use Internet
EIS ITS2 06 0811	Implement Maintenance Procedures
EIS ITS2 07 0811	Maintain Equipment and Consumables
EIS ITS2 08 0811	Apply Problem Solving Techniques to Routine Malfunction
EIS ITS2 09 0811	Participate in Workplace Communication
EIS ITS2 10 0811	Work in Team Environment
EIS ITS2 11 0811	Develop Business Practice
EIS ITS2 12 0615	Standardize and Sustain 3S

1.4. Duration of the TVET-Program

The Program will have duration of **520** *hours* including the on-the-job practice or cooperative training time at all.

1.5. Qualification Level and Certification

Based on the descriptors elaborated on the Ethiopian National TVET Qualification Framework (NTQF) the qualification of this specific TVET Program is **"Level II".**

The trainees can exit after successfully completing the Modules in one level and will be awarded the equivalent institutional certificate on the level completed. The trainees can also exit after completing any one learning module. However, only certificate of attainment or attendance, (this is institutional discretion) will be awarded.

1.6. Target Groups

Any citizen **with or without impairment** who meets the entry requirements under items 1.7 and capable of participating in the learning activities is entitled to take part in the Program.

1.7 Entry Requirements

The prospective participants of this program are required to possess the requirements or directive of the Federal TVET Agency.

1.8 Mode of Delivery

This TVET-Program is characterized as a formal Program on middle level technical skills. The mode of delivery is co-operative training. The TVET-institution and identified companies have forged an agreement to co-operate with regard to implementation of this program. The time spent by the trainees in the industry will give them enough exposure to the actual world of work and enable them to get hands-on experience.

The co-operative approach will be supported with school-based lecture-discussion, simulation and actual practice. These modalities will be utilized before the trainees are exposed to the industry environment.

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1.9   TVET-Program Structure

Unit of Competence		Module Code & Title		Learning Outcomes	Duration (In Hours)
EIS ITS2_12_0615	**Standardize and Sustain 3S**	EIS ITS2 M01 0919	**Standardizing and Sustain 3S**	• Prepare for work • Standardize 3S • Sustain 3S	20
EIS ITS2 09 0811	**Participate in Workplace Communication**	EIS ITS2 M02 0919	**Participate in Workplace Communication**	• Obtain and convey workplace information • Participate in workplace meetings and discussions • Complete relevant work related documents	15
`	**Work in Team Environment**	EIS ITS2 M03 0919	**Working Team Environment**	• Describe team role and scope • Identify own role and responsibility within team • Work as a team member	15
EIS ITS2 01 0811	**Operate Database Application**	EIS ITS2 M04 0919	**Operating Database Application**	• Create database objects • Customize basic settings • Create reports • Create forms • Retrieve information	120

EIS ITS2 02 081	Update and Document Operational Procedures	EIS ITS2 M05 0919	Updating and Documenting Operational Procedures	• Assess technical and user documentation • Update procedures • Update documentation	20
EIS ITS2 03 0811	Administrate Network and Hardware Peripherals	EIS ITS2 M06 0919	Administrating Network and Hardware Peripherals	• Confirm requirements of client • Obtain required peripherals • Connect hardware peripherals • Install peripherals to a network • Configure peripheral services • Administer and support peripheral services • Maintain peripherals and fix common problems • Use and maximize operating system • Support input and output devices	90
EIS ITS2 04 0811	Care for Network and Computer Hardware	EIS ITS2 M07 0919	Caring for Network and Computer Hardware	• Identify computer hardware components • Establish location requirements for hardware and peripherals • Monitor threats to the network • Establish maintenance practices	60
EIS ITS2 05 0811	Access and Use Internet	EIS ITS2 M08 0919	Accessing and Using Internet	• Access internet • Search internet	50

EIS ITS2 06 0811	**Implement Maintenance Procedures**	EIS ITS2 M09 0919	**Implementing Maintenance Procedures**	• Determine best practices for equipment and software maintenance • Revise practices, where appropriate • Identify and analyze IT system components to be maintained • Apply maintenance procedures	50
EIS ITS2 07 0811	**Maintain Equipment and Consumables**	EIS ITS2 M10 0919	**Maintaining Equipment and Consumables**	• Clean equipment • Replace and maintain consumables and supplies • Maintain equipment	20
EIS ITS2 08 0811	**Apply Problem - Solving Techniques to Routine Malfunction**	EIS ITS2 M11 0919	**Applying Problem - Solving Techniques to Routine Malfunction**	• Identify problems • Determine fundamental / root causes of the problem • Recommend solutions to problem	30
EIS ITS2 11 0811	**Develop Business Practice**	EIS ITS2 M12 0919	**Developing Business Practice**	• Identify business export Module • Identify personal business skills • Plan for establishment of business operation • Implement establishment plan • Review implementation process	30

*The time duration (Hours) indicated for the module should include all activities in and out of the TVET institution.

1.10 Institutional Assessment

Two types of evaluation will be used in determining the extent to which learning outcomes are achieved. The specific learning outcomes are stated in the modules. In assessing them, verifiable and observable indicators and standards shall be used.

The **formative assessment** incorporated in the learning modules and form part of the learning process. Formative evaluation provides the trainee with feedback regarding success or failure in attaining learning outcomes. It identifies the specific learning errors that need to be corrected, and provides reinforcement for successful performance as well. For the teacher, formative evaluation provides information for making instruction and remedial work more effective.

Summative Evaluation: the other form of evaluation is given when all the modules in the program have been accomplished. It determines the extent to which competence have been achieved. And the result of this assessment decision shall be expressed in the term 'competent or not yet competent'.

Techniques or tools for obtaining information about trainees' achievement include oral or written test, demonstration and on-site observation.

1.11 TVET Trainers Profile

The trainers conducting this particular TVET Program are **C Level** and have satisfactory practical experiences or equivalent qualifications.

LEARNING MODULE 01	Logo of TVET Provider

TVET-PROGRAMME TITLE: **: IT SUPPORT SERVICE LEVEL II**

MODULE TITLE: Standardizing and Sustaining 3S

MODULE CODE: EIS ITS2 M01 0919

NOMINAL DURATION: 20 Hours

MODULE DESCRIPTION: This module covers the knowledge, skills and attitudes required by worker to standardize and sustain 3S to his/her workplace. It covers responsibility for the day- to-day operations of the workplace and ensuring that continuous improvements of Kaizen elements are initiated and institutionalized.

LEARNING OUTCOMES

At the end of the module, the trainee will be able to:

LO1 Prepare for work

LO2 Standardize 3S

LO3 Sustain 3S

MODULE CONTENTS:

LO1 Prepare for work

    1.1. Using work instructions.

    1.2. Reading and interpreting Job specifications.

    1.3. OHS requirements.

    1.4. Observing personal protection.

    1.5. Identifying and checking safety equipment and tools.

    1.6. Preparing and using tools and equipment.

LO2 Standardize 3S

    2.1 Preparing and using plan. .

    2.2 Relevant procedures in standardizing 3s

    2.3 Preparing and implementing tools and techniques.

    2.4 Following Checklists for standardize activities

    2.5 Reporting to relevant personnel

    2.6 Keeping the workplace to the standard.

    2.7 Avoiding problems.

LO3 Sustain 3S

    3.1. Preparing and following plan.

    3.2. Discussing, preparing and implementing tools and techniques.

    3.3. Inspecting workplace.

    3.4. Cleaning up workplace.

    3.5. Identifying situations and taking actions.

    3.6. Recommending Improvements.

    3.7. Following checklists and reporting.

    3.8. Avoiding Problems by sustaining activities

	LEARNING METHODS:			
For None Impaired Trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture discussion	❖ Provide large print text ❖ Prepare the lecture in Audio/video & in Brail format ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop

		points		
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers

Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:				
Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	❖ Brief the instruction or provide them in large text/Brail ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO 1 Prepare for work.

- Work instructions are used to determine job requirements, including method, material and equipment.
- Job specifications are read and interpreted following working manual.
- OHS requirements, including dust and fume collection, breathing apparatus and eye and ear personal protection needs are observed throughout the work.
- Safety equipment and tools are identified and checked for safe and effective operation.
- Tools and equipment are prepared and used to implement 3S.

LO2 Standardize 3S

- Plan is prepared and used to standardize 3S activities.
- Tools and techniques to standardize 3S are prepared and implemented based on relevant procedures.
- Checklists are followed for standardize activities and reported to relevant personnel.
- The workplace is kept to the specified standard.
- Problems are avoided by standardizing activities

LO3 Sustain 3S

- Plan is prepared and followed to standardize 3S activities.
- Tools and techniques to sustain 3S are discussed, prepared and implemented based on relevant procedures.
- Workplace is inspected regularly for compliance to specified standard and sustainability of 3S techniques.
- Workplace is cleaned up after completion of job and before commencing next job or end of shift.
- Situations are identified where compliance to standards is unlikely and actions specified in procedures are taken.
- Improvements are recommended to lift the level of compliance in the workplace.
- Checklists are followed to sustain activities and report to relevant personnel.
- Problems are avoided by sustaining activities

Annex: Resource Requirements

EIS ITS2 M01 0919 **Standardizing and Sustaining 3S**

Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	**Learning Materials**			
1	TTLM	Prepared by the trainer	25	1:1
2	Textbook			1:5
3	Reference Books			1:5
B.	**Learning Facilities & Infrastructure**			
1	Lecture room	5m*5m	1	1:25
2	Library	10m*10m	1	1:25
C	**Consumable Materials**			
1.	Copy paper	A4 size	5rim	1:5
2.	Pencil	Standard	25	1:1
D	**Tools and Equipment**			
1	Paint	Galloon	5	1:5
2	Hook	Standard		1:5
3	Sticker	Standard	5	1:5
4	Signboard	Standard	1	1:5
5	Nails	5mm	1 Kg	1:25
6	Shelves	Standard	1	1:25
7	Chip wood	Standard	1	1:5
8	Sponge	Standard	25	1:1
9	Broom	Standard	25	1:1
10	Shadow board/tools board	Standard	1	1:25

LEARNING MODULE 02	Logo of TVET Provider

TVET-PROGRAMME TITLE: : IT SUPPORT SERVICE LEVEL II

MODULE TITLE: Participating in Workplace Communication

MODULE CODE: EIS ITS2 M02 0919

NOMINAL DURATION: 20 Hours

MODULE DESCRIPTION: This module covers the knowledge, skills and attitudes   required to gather, interpret and convey information in response to workplace requirements.

 LEARNING OUTCOMES
At the end of the module, the trainee / learner will be able to:
 LO1. Obtain and convey workplace information
 LO2. Participate in workplace meetings and discussions
 LO3. Complete relevant work related documents

 MODULE CONTENTS:

LO.1 Obtain and convey workplace information
- 1.1. Accessing information from appropriate sources.
- 1.2. Using effective questioning, listening and speaking skill.
- 1.3. Appropriate medium to transfer information and ideas.
- 1.4. Appropriate non- verbal communication.
- 1.5.   Appropriate lines of communication with
  - 1.5.1 Supervisors
  - 1.5.2 Colleagues.
- 1.6. workplace procedures for the location and storage of information.
- 1.7. Carrying out personal interaction.

LO2. Participate in workplace meetings and discussions.
- 2.1. Attending team meetings.
- 2.2. Expressing own opinions.
- 2.3. Listening others without interruption.
- 2.4. Making meeting inputs consistent with.
  - 2.4.1 Meeting purpose
  - 2.4.2 protocols
- 2.5.   Conducting Workplace interactions.
- 2.6.   Asking and responding questions about workplace procedures.
- 2.7.   Interpreting and implementing meeting outcomes.

LO3. Complete relevant work related documents
- 3.1.   Range of forms relating to conditions of employment.
- 3.2.   Recording workplace data.
- 3.3.   Using basic mathematical processes.
- 3.4.   Identifying and acting on errors in recording on forms.
- 3.5.   Completing requirements of reporting.

For None Impaired Trainees	LEARNING METHODS:			
	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture discussion	❖ Provide large print text ❖ Prepare the lecture in Audio/video & in Brail format ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop

Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers

Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:				
Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	❖ Brief the instruction or provide them in large text/Brail ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO 1 Obtain and convey workplace information

- Specific and relevant information is accessed from appropriate sources
- Effective questioning , active listening and speaking skills are used to gather and convey information
- Appropriate medium is used to transfer information and ideas
- Appropriate non- verbal communication is used
- Appropriate lines of communication with supervisors and colleagues are identified and followed
- Defined workplace procedures for the location and storage of information are used
- Personal interaction is carried out clearly and concisely

LO 2 Participate in workplace meetings and discussions

- Team meetings are attended on time
- Own opinions are clearly expressed and those of others are listened to without interruption
- Meeting inputs are consistent with the meeting purpose and established protocols
- Workplace interactions are conducted in a courteous manner
- Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded to
- Meetings outcomes are interpreted and implemented

LO 3 Complete relevant work related documents

- Range of forms relating to conditions of employment are completed accurately and legibly
- Workplace data is recorded on standard workplace forms and documents
- Basic mathematical processes are used for routine calculations
- Errors in recording information on forms/ documents are identified and properly acted upon
- Reporting requirements to supervisor are completed according to organizational guidelines

Annex: Resource Requirements

	EIS ITS2 M02 0919 **Participate in Workplace Communication**			
Item No.	**Category/Item**	**Description/ Specifications**	**Quantity**	**Recommended Ratio (Item: Trainee)**
A.	**Learning Materials**			
1	TTLM.	Prepared by the trainer	25	1:1
2	Textbook		25	1:1
3	Reference book			
B.	**Learning Facilities & Infrastructure**			
1	Lecture room / work shop	5m*5m	1	1:25
2	Library	10m*10m	1	1:25
C.	**Consumable Materials**			
1	Copy paper	A4 size	5 rim	1:5
D.	**Tools and Equipments**			

LEARNING MODULE-3	Logo of TVET Provider

TVET-PROGRAMME TITLE: **: IT SUPPORT SERVICE LEVEL II**
MODULE TITLE: Working In Team Environment
MODULE CODE: EIS ITS2 M03 0919
NOMINAL DURATION: 15 Hours
MODULE DESCRIPTION: This module covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team
LEARNING OUTCOMES   At the end of the module, the trainee / learner will be able to: **LO1** Describe team role and scope   **LO2** Identify own role and responsibility within team   **LO3** Work as a team member
MODULE CONTENTS: **LO1: Describe team role and scoop**   1.1. Sources of information   1.2. Role and objective of the team.   1.3. Team parameters relationships and responsibilities from   **LO2: Identify own role and responsibility within team**   2.1. Identifying individual role and responsibilities.   2.2. Roles and responsibility of other team members.   2.3. Reporting relationships within the team and external to team   **LO3 Work as a team member**   3.1. Using effective and appropriate forms of communications.   3.2. Undertaking interactions with team members.   3.3. Identifying individual competencies and workplace context.   3.4. Making effective and appropriate contributions to team.   3.5. Observing Protocols in reporting.   3.6. Making contribution to the development of team work plans.

LEARNING METHODS:				
For None Impaired Trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture discussion	❖ Provide large print text ❖ Prepare the lecture in Audio/video & in Brail format ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop

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Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers

Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:				
Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	❖ Brief the instruction or provide them in large text/Brail ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO1 Describe team role and scope

- The role and objective of the team is identified from available sources of information
- Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate   external sources

LO2   Identify own role and responsibility within team

- Individual role and responsibilities within the team environment are identified
- Roles and responsibility of other team members are identified and recognized
- Reporting relationships within team and external to team are identified

LO3 Work as a team member

- Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives
- Effective and appropriate contributions made to complement team activities and objectives, based on individual skills and competencies and workplace context
- Observed protocols in reporting using standard operating procedures
- Contribute to the development of team work plans based on an understanding of team's role and objectives and individual competencies of the members.

Annex: Resource Requirements

Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
EIS ITS2 M03 0919 **Working In Team Environment**				
A.	**Learning Materials**			
1	TTLM.	Prepared by the trainer	25	1:1
2	Textbook		25	1:1
3	Reference book			
B.	**Learning Facilities & Infrastructure**			
1	Lecture room / work shop	5m*5m	1	1:25
2	Library	10m*10m	1	1:25
C.	**Consumable Materials**			
1	Copy paper	A4 size	5 rim	1:5
D.	**Tools and Equipments**			

LEARNING MODULE 4	Logo of TVET Provider

TVET-PROGRAMME TITLE: IT SUPPORT SERVICE LEVEL II

MODULE TITLE:- Operating Database Application

MODULE CODE: EIS ITS2 M04 0919

NOMINAL DURATION: 60 Hours

MODULE DESCRIPTION: This module defines the competency required to operate database applications and perform basic operations.

LEARNING OUTCOMES

At the end of the module the learner will be able to:

LO1. Create database objects

LO2. Customize basic settings

LO3. Create reports

LO4. Create forms

LO5. Retrieve information

MODULE CONTENTS:

Lo1. Create Database Objects

1.1.   Basic Design Principles

1.2.   Opening And Designing Database Application

1.3.   Database Object

1.4.   Creating Database Object

1.5.   Modifying Database Object

1.6.   Creating Relationship

1.7.   Adding, Modifying And Deleting Records

1.8.   Saving And Compiling Database Objects

Lo2.   Customize basic settings

2.1. Adjusting page layout

2.2.   Opening and viewing different toolbars

2.3.   Formatting font

Lo3. Create reports

3.1.   Designing reports in a logical sequence

3.2.   Modifying reports

3.3.   Distributing reports to appropriate person

Lo4. Create forms

4.1. Using wizard to create a simple form

4.2. Opening existing database and modifying records

4.3. Rearranging objects within the form

Lo5. Retrieve information

5.1.   Accessing existing database and locating required records

5.2.   Creating simple query to retrieve information

5.3.   Developing query with multiple criteria

5.4.   Selecting data and displaying appropriately

LEARNING METHODS:				
For None Impaired Trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video & in Brail format** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary

Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:				
Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	❖ Brief the instruction or provide them in large text/Brail ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

Assessment criteria

Lo1. Create database objects

- Database application is opened and designed incorporating basic *design principles*
- Database object is created according to database usage, as well as user requirements
- Database object is modified as required
- Data in a table are added and modified according to information requirements
- Records are added, modified and deleted as required
- Database objects are saved and compiled

Lo2. Customize basic settings

- Page layout is adjusted to meet user requirements
- Different toolbars are opened and viewed
- Font is formatted as appropriate for the purpose of the database entries

LO3. Create reports

- Reports are designed to present data in a logical sequence or manner
- Reports are modified to include/exclude additional requirements
- Reports are distributed to appropriate person in a approved format

Lo4. Create forms

- Wizard used to create a simple form
- Existing database opened and records through a simple form modified
- Objects within the form rearranged to accommodate information requirements

Lo5. Retrieve information

- Existing database is accessed and required records located
- Simple query is created and required information retrieved
- Query with multiple criteria is developed and required information retrieved
- Data are selected and appropriately displayed

Annex: Resource Requirements

		EIS ITS2 M04 0919 Operating Database application		
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	**Learning Materials**			
1.	TTLM	- Teacher's Made • Learning Guide • Teaching guide • Assessment Packet	5 copies for each	1:1
2.	Textbooks	Any relevant Database Book	25	1:1
3.	Reference Books	• Fundamentals of Database System 4th Edition Ramez Elmasri	25	1:1
4.	Journals/Publication/ Magazines	- ICT journals(Monthly)		1:25
B.	**Learning Facilities & Infrastructure**			
1	Lecture Room	- 8x12m; equipped with IT equipment and internet		1:25
2.	Library	- Multipurpose		
3.	Shelves	- wooden or metal	5	
4.	Locker	- wooden or metal	2	
5.	Cabinet	- metal	1	
C.	**Consumable Materials**			
1.	Blank Disk	- CD-R/RW - DVD/CDRW	5	1:4
2.	Stationery	- Whiteboard marker, printing paper, printer ink		
3	Flash disk	San disk or similar 16GB	8	1:1
D.	**Tools and Equipment's**			
1	Samples	• Sample Daily work plans • Sample Project plans • Sample Program plans • Sample Organization strategic and restructuring plans • Sample Resource plans • Sample Skills development plans • Sample Management strategies and objectives	7	1:25

2	Operating systems	Any operating system that has multi-user ability, Linux, Mac OS, Windows XP or above		
3	ASP ISP	• The internet • PSTN for dial-up modems • CDMA 1X • EV-DO • private lines • VPN • data and voice • Current Internet Technologies		
4	UPS	• 750 Volt Ampere	25	
5	Divider	• American socket supporter	13	
6	Desktop Computer including its peripherals	Core I5, RAM=4GB, HDD=500GB	25	1:1
7	Multimedia projector	- LCD	1	1:25
8	Printer	- Capability of A3 printing - color printing capability	1	1:25
9	Network toolkit	- set/case	5	1:5
10	Maintenance toolkit	- set/case	5	1:5
11	Scanner	-Any	2	1:13
12	Web cam	-8piexel and above	2	1:13

LEARNING MODULE5	Logo of TVET Provider

TVET-PROGRAMME TITLE: IT SUPPORT SERVICE LEVEL II

MODULE TITLE: Updating and Documenting Operational Procedures

MODULE CODE:EIS ITS2 M05 0919

NOMINAL DURATION:25 Hours

MODULE DESCRIPTION: This module defines the competence required to assess, update and document the operational procedures required to use the system.

LEARNING OUTCOMES
At the end of the module the learner will be able to:

LO1. Assess technical and user documentation

LO2. Update procedures

LO3. Update documentation

MODULE CONTENTS:
LO1. Assess technical and user documentation
1.1. Reviewing current version of technical and user documentation
- 1.1.1. System or project specifications
- 1.1.2. System design
- 1.1.3. System functionality
- 1.1.4. Technical manuals
- 1.1.5. Operational procedures
- 1.1.6. Training materials
1.2. Comparing technical and user documentation with current system
- 1.2.1. Networks
- 1.2.2. Software
- 1.2.3. Databases
- 1.2.4. Applications
- 1.2.5. Servers
- 1.2.6. Operating systems
- 1.2.7. Gateways.
1.3. Identifying and documenting in accuracies for future reference.
LO2. Update procedures
2.1. Determining operational procedure
2.2. Developing / updating operational procedures
2.3. Submitting proposed operating procedures to appropriate person.

LO3. Update documentation

3.1. Reviewing Feedback and making appropriate changes

3.2. Updating Technical and user documentation

3.3. Submitting technical and user documentation for final approval

3.4. Distributing technical and user documentation

LEARNING METHODS:

For None Impaired Trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in Audio/video & in <u>Brail format</u> ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers

Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
ASSESSMENT METHODS:				
Inter view		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe

			upper limb impairment

Assessment criteria

Lo1. Assess technical and user documentation

- Current version of technical and user documentation is reviewed based on the latest operational procedures.
- Accuracy of technical and user documentation is compared with current system functionality.
- Inaccuracies are identified and documented for future reference

Lo2. Update procedures

- Operational procedure requirements are determined using review outcomes.
- Operating procedures are developed / updated for the system.
- Proposed operating procedures are submitted to appropriate person.

LO3. Update documentation

- Feedback is reviewed and appropriate changes are made as needed.
- Technical and user documentation are updated to incorporate changes.
- Technical and user documentation are submitted to appropriate person for final approval.
- Technical and user documentation are distributed as agreed with appropriate person.

Annex: Resource Requirements

	EIS ITS2 M05 0919 Updating and Documenting Operational Procedures			
Item No.	**Category/Item**	**Description/ Specifications**	**Quantity**	**Recommended Ratio (Item: Trainee)**
A.	*Learning Materials*			
1.	TTLM	- Teacher's Made • Learning Guide • Teaching guide • Assessment Packet	5 copies for each	1:5
2.	Textbooks	Any relevance Text book/if it available	25	1:1
3.	Reference Books	Any relevance Text book/if it available	25	1;1
4.	Journals/Publication/ Magazines	- ICT journals(Monthly)		1:25
B.	*Learning Facilities & Infrastructure*			
1	Lecture Room	- 8x12m; equipped with IT equipment and internet		1:25
2.	Library	- Multipurpose		
3.	Shelves	- wooden or metal	5	
4.	Locker	- wooden or metal	2	
5.	Cabinet	- metal	1	
C.	*Consumable Materials*			
1.	Blank Disk	- CD-R/RW - DVD/CDRW	5	1:4
2.	Stationery	- Whiteboard marker, printing paper, printer ink		
3	Flash disk	San disk or similar 16GB	8	1:1
D.	**Tools and Equipment's**			
1	Samples			
2	Operating systems	Any operating system that has multi-user ability, Linux, Mac OS, Windows	7	1:25
3	ASP ISP	• Current Internet Technologies		
4	UPS	• 750 Volt Ampere	25	
5	Divider	• American socket supporter	13	
6	Desktop Computer including its peripherals	Core I5, RAM=4GB, HDD=500GB	25	1:1
7	Multimedia projector	- LCD	1	Per section
8	Printer	- Capability of A3 printing - color printing capability	1	Per section
9	Network toolkit	- set/case	5	1:5
10	Maintenance toolkit	- set/case	5	1:5
11	Scanner	- Any	2	1:13
12	Web cam	-8piexel and above	2	1:13

LEARNING MODULE 6	Logo of TVET Provider

TVET-PROGRAMME TITLE: IT SUPPORT SERVICE LEVEL II

MODULE TITLE: Administrating Network and Hardware Peripherals

MODULE CODE: **EIS ITS2 M06 0919**

NOMINAL DURATION: 90 Hours

MODULE DESCRIPTION: This module defines the competence required to connect, install, configure, maintain and troubleshoot local area network and peripherals.

LEARNING OUTCOMES

At the end of the module the learner will be able to:

LO1. Confirm requirements of client

LO2. Obtain required peripherals

LO3. Connect hardware   peripherals

LO4. Install peripherals to a network

LO5. Configure peripheral services

LO6. Administer and support peripheral services

LO7. Maintain peripherals and   fix common problems

LO8. Use and maximize operating system

LO9. Support input and output devices

MODULE CONTENTS:

> **Commented [h1]:** Well done

LO1. Confirm requirements of client

1.1.   Identifying and conforming Client peripheral with organizational standard

1.1.1. Peripheral device

1.1.2. organizational standard

    1.1.2.1.   personal use of emails and internet access,

    1.1.2.2.   content of emails,

    1.1.2.3.   downloading information and accessing particular websites,

    1.1.2.4.   opening mail with attachments,

    1.1.2.5.   virus risk (MS windows OS and Mac OS only),

    1.1.2.6.   dispute resolution, document procedures and templates,

    1.1.2.7.   communication methods and financial control mechanisms

1.2.   Documenting Client requirements, peripherals and   reporting findings to appropriate

person

1.3.   Verifying and reporting Client requirements

1.4.   Taking action to ensure client support expectation by vendor warranty and support services

LO2. Obtain required peripherals

2.1.   Obtaining peripherals under instruction

2.2.   Entering peripherals into equipment inventory

2.3.   Validating delivered component and physical content

2.4.   Storing peripherals

LO3. Connect hardware   peripherals

3.1.   Verifying installation time frame

3.2.   Removing old Peripherals

3.3.   Connecting new peripherals by taking into account operating systems.

3.4.   Configuring computers to accept new peripherals based on business requirement

3.5.   Testing and confirming compatibility issues and hardware peripherals to meet client satisfaction

LO4. Install peripherals to a network

4.1.   Planning location of peripherals to provide service to users

4.2.   Connecting peripherals to the network

4.3.   Connecting peripherals to computers using parallel, serial and other direct connection

4.4.   Testing Peripherals

LO5. Configure peripheral services

5.1. Installing software to manage local and network-connected peripherals

5.2. Using meaningful name for peripherals and control queues

5.3. Configuring Security and access to make use of peripherals

5.4. Configuring Workstation to allow applications:

LO6. Administer and support peripheral services

6.1. Assigning Priority to control queues

6.2. Configuring settings on network

6.3.   Demonstrating methods to use peripherals services

LO7. Maintain peripherals and fix common problems

7.1. Establishing and following regular maintenance schedule

7.2. Replacing consumables and components

7.3. Fixing peripherals unfortunate accident and malfunction

7.4. Monitoring peripheral usage and traffic

7.5. Determining and rectifying failure of peripherals

LO8. Use and maximize operating system

8.1. Configuring Operating system

8.2. Installing, upgrading and uninstalling Application software

8.3. Using graphical user interface and the command line interface

8.4. Using Operating system and third-party utilities

8.5. Customizing Graphical user interface

LO9. Support input and output devices

9.1. Setting up and checking functionality of Input and output devices

9.2. Installing drivers and checking functionality

9.3. Ensuring Drivers are working properly

LEARNING METHODS:				
For None Impaired Trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video & in <u>Brail format</u>** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers

Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
ASSESSMENT METHODS:				
Inter view		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment

Assessment criteria

Lo1. Confirm requirements of client

- Client peripheral requirements are Identified and confirmed in accordance with organizational standards.

- Client requirements and peripherals needed are documented in line with organizational standards and   report findings to the appropriate person.

- Client requirements are verified with appropriate person in line with organizational standards and reporting procedures.

- Action taken to ensure client support expectations are covered by vendor warranty and support services.

Lo2. Obtain required peripherals

- Peripherals are obtained under instruction from appropriate person.

- Peripherals are entered into *equipment* inventory according to organizational standards.

- Contents of delivered components and physical contents that match the packing list are validated and resolved discrepancies if necessary.

- Peripherals are stored according to vendor/manual guidelines.

LO3. Connect hardware   peripherals

- Timeframe for installation schedule is verified with the client requirement.

- Old peripherals are removed if they are being replaced with minimal disruption to clients, taking into account *environmental considerations* and *OHS standards.*

- New peripherals are connected with minimum disruption to *clients*, taking into account *operating system* procedures.

- The computer configured to accept the new peripherals based on business requirement

- Hardware peripherals are tested and confirmed to client satisfaction, pay particular attention to possible impact on other systems and make adjustments as required.

Lo4. Install peripherals to a network

- Location of peripherals are planned to provide appropriate services to *users* and to take into consideration OHS standards.

- Peripherals are connected to *network*, using vendor-approved method and technology.

- Peripherals are connected to computers in the network using parallel, serial or other direct connection methods appropriate for the job order.

- Peripherals are tested for correct operation based on client's specifications.

Lo5. Configure peripheral services

- Required software is installed to manage local and network-connected peripherals according to business requirement software peripherals according to business requirement.

- Meaningful names are used for peripherals and control queues

- Security and access are configured to allow appropriate users to make use of peripherals.

- Workstation for peripherals is configured to allow applications to work with peripherals.

LO6. Administer and support peripheral services

- Priority is assigned to control queues based on organizational requirement.

- Settings on the network is configured to create maintenance schedules, usage logs, and cost center usage statistics

- Methods are demonstrated to the user for using peripheral services from their application or workstation

LO7. Maintain peripherals and fix common problems

- A regular maintenance schedule is established and followed as recommended by peripheral manufacturer.

- *Consumables* and components are replaced when required.

- Peripheral mishaps (unfortunate accident) and malfunctions are fixed based on procedure.

- Peripheral usage and traffic is monitored and recommend additional peripherals if needed.

- Failures of peripheral services or devices are determined and rectify as required.

LO8. Use and maximize operating system

- Operating system is configured to suit the working environment, including but not limited to setting variables.

- Application software is installed, upgraded and uninstalled to suit the working environment.

- Both graphical user interface and the command line interface are used to perform basic tasks based on clients.

- Operating system and third-party utilities are used based system requirement.

- Graphical user interface is customized based on clients.

LO9. Support input and output devices

- Input and output devices are set up and checked functionality based on requirement.

- Drivers are installed as appropriate and checked functionality based vendor manuals.

- Drivers are ensured to be properly working

Annex: Resource Requirements

	EIS ITS2 M06 0919 Administrating Network and Hardware Peripherals			
Item No.	**Category/Item**	**Description/ Specifications**	**Quantity**	**Recommended Ratio (Item: Trainee)**
A.	**Learning Materials**			
1.	TTLM	**Trainer Made** - Teacher's Made • Learning Guide • Teaching guide • Assessment Packet Any	5 copies for each	1:5
2.	Textbooks		25	1:1
3.	Reference Books	CompTIA Network+ all in one exam guide 6th edition Basics of Networking	25	1:1
4.	Journals/Publication/ Magazines	- ICT journals(Monthly)		1:25
B.	**Learning Facilities & Infrastructure**			
1	Lecture Room	- 8x12m; equipped with IT equipment and internet		1:25
2.	Library	- Multipurpose		
3.	Shelves	- wooden or metal	5	
4.	Locker	- wooden or metal	2	
5.	Cabinet	- metal	1	
C.	**Consumable Materials**			
1.	Blank Disk	- CD-R/RW - DVD/CDRW	5	1:4
2.	Stationery	- Whiteboard marker, printing paper, printer ink		
3	Flash disk	San disk or similar 16GB	8	1:1
D.	**Tools and Equipment**			
1	Samples			
2	Operating systems	Any operating system that has multi-user ability, Linux, Mac OS, Windows	7	1:25
3	ASP ISP	• Current Internet Technologies		
4	UPS	• 750 Volt Ampere	25	
5	Divider	• American socket supporter	13	
6	Desktop Computer including its peripherals	Core I5, RAM=4GB, HDD=500GB	25	1:1
7	Multimedia projector	- LCD	1	1:25
8	Printer	- Capability of A3 printing - color printing capability	1	Per section
9	Network toolkit	- set/case	5	1:5
10	Maintenance toolkit	- set/case	5	1:5
11	Scanner	- Any	2	1:13
12	Web cam	-8piexel and above	2	1:13

LEARNING MODULE 7	Logo of TVET Provider

TVET-PROGRAMME TITLE: IT SUPPORT SERVICE LEVEL II

MODULE TITLE: Caring for Network and Computer Hardware

MODULE CODE:EIS ITS2 M070919

NOMINAL DURATION: 50 Hours

MODULE DESCRIPTION: This module defines the competence required to maintain computer hardware. It includes locating sitting of hardware for safe and efficient utilization and reducing risk of infection.

LEARNING OUTCOMES

At the end of the module the learner will be able to:

LO1. Identify computer hardware components

LO2. Establish location requirements for hardware and peripherals

LO3. Monitor threats to the network

LO4. Establish maintenance practices

MODULE CONTENTS:

LO1. Identify computer hardware components

1.1. Identifying external hardware components and peripherals

1.2. Identifying internal hardware components.

1.3. Reviewing ,recording and applying Requirements specifying by hardware manufacturers

1.4. Determining and recording quality standard of hardware and peripherals

1.5. Determining and establishing relationship of hardware and software components

1.6. Determining, recording and applying Safe work practices

LO2. Establish location requirements for hardware and peripherals

2.1.   Determining and applying suitable environmental conditions

2.2.   Considering orientation and proper functioning of different computer platforms

2.3.   Determining and applying System protection devices

2.4.   Determining and applying requirements when moving hardware

2.5.   Determining and applying suitable storage principle

2.6.   Considering and applying business requirements

2.7.   Considering OHS standards and environmental concerns

LO3. Monitor threats to the network

   3.1. Using third-party software to evaluate and report on system security

   3.2. Identifying security threats

   3.3. Ensuring carry-out spot checks and other security strategies

   3.4. Investigating and implementing inbuilt or additional encryption facilities

   3.5. Preparing and presenting an audit report and recommendation

   3.6. Obtaining approval for recommended changes

LO4. Establish maintenance practices

  4.1 Determining maintenance requirements specified by the equipment manufacturer.

  4.2 Producing maintenance schedules

  4.3 Performing diagnostic function

  4.4 Configuring software security settings

  4.5 Determining unserviceable components

  4.6 Using the operating system and third-party diagnostic tools

Commented [h2]: Well done

LEARNING METHODS:

For None Impaired Trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video & in <u>Brail format</u>** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers

Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary

ASSESSMENT METHODS:

Inter view		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment

Assessment criteria

Lo1. Identify computer hardware components

- External hardware components and peripherals are identified based on business requirement

- Internal hardware components are identified as needed

- Requirements specified by hardware manufacturers are reviewed, recorded and applied where appropriate.

- Quality standards of hardware components and associated peripherals are determined and recorded

- Relationship of computer hardware and software is determined and established for proper functioning of the system

- Safe work practices are determined, recorded and applied, taking into account legal and manufacturer requirements

Lo2. Establish location requirements for hardware and peripherals

- Suitable environmental conditions are determined and applied for hardware and peripherals

- General orientation and proper functioning of different computer platforms are considered in locating computer

- System protection devices are determined and applied to keep hardware form damage.

- Requirements are determined and applied when moving hardware.

- Suitable storage principles are determined and applied for hardware and associated peripherals and media.

- Business requirements are considered and applied in respect of hardware location

- Functions of computer hardware and associated OHS standards and environmental concerns are considered

LO3. Monitor threats to the network

- Use third-party software or utilities to evaluate and report on system security

- Review logs and audit reports to identify security threats

- Carry-out spot checks and other security strategies to ensure that procedures are being followed

- Investigate and implement inbuilt or additional encryption facilities

- Prepare and present an audit report and recommendations to appropriate person

- Obtain approval for recommended changes to be made

Lo4. Establish maintenance practices

- Maintenance requirements specified by the equipment manufacturer are determined.

- Maintenance schedules including removal of dust and grease build -up are produced

- Diagnostic functions including replacing suspect components with other serviceable components and reloading of associated software are performed

- Software security settings to prevent destructive software from infecting the computer are configured

- Unserviceable components are determined whether replaceable through warranty, replacement or upgrade

- Diagnostic functions are performed using the operating system and third-party diagnostic tools

Annex: Resource Requirements

EIS ITS2 M07 0919Caring for Network and Computer Hardware:			
Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Learner)
Learning Materials			
TTLM	- Teacher's Made • Learning Guide • Teaching guide • Assessment Packet	5 copies for each	1:5
Textbooks	Any	25	1:1
Reference Books	CompTIA Network+ all in one exam guide 6th edition Basics of Networking	25	1:1
Journals/Publication/Magazines	- EIS journals(Monthly)		1:25
Learning Facilities & Infrastructure			
Lecture Room	- 8x12m; equipped with IT equipment and internet		1:25
Library	- Multipurpose		
Shelves	- wooden or metal	5	
Locker	- wooden or metal	2	
Cabinet	- metal	1	
Consumable Materials			
Blank Disk	- CD-R/RW - DVD/CDRW	5	1:4
Stationery	- Whiteboard marker, printing paper, printer ink		
Flash disk	San disk or similar 16GB	8	1:1
Tools and equipment			
UPS	• 750 Volt Amper	25	
Divider	• American socket supporter	13	
Desktop Computer including its peripherals	Core I5, RAM=4GB, HDD=500GB	25	1:1
Multimedia projector	- LCD	1	1:25
Printer	- Capability of A3 printing - color printing capability	1	1:25
Network toolkit	- set/case	5	1:5
Maintenance toolkit	- set/case	5	1:5

LEARNING MODULE 8	Logo of TVET provider

TVET-PROGRAMME TITLE: IT SUPPORT SERVICE LEVEL 2

MODULE TITLE: ACCESSING AND USING INTERNET

MODULE CODE: EIS ITS2 M08 0919

NOMINAL DURATION: 30 Hours

MODULE DESCRIPTION: this module defines the competence required to access internet and complete basic web search tasks. It includes finding required information

LEARNING OUTCOMES

 At the end of the module the learner will be able to:

> **LO1.** Access internet
>
> **LO2.**search internet

MODULE CONTENTS:

LO1. ACCESS INTERNET

1.1.   Opening internet browser and setting up home page by using internet options

1.2.   Adjusting display/view mode

1.3.   Modifying toolbars

1.4.   Accessing and retrieving data from particular site

1.5.   Loading image depending on:

1.6.   Opening URL to obtain data and browser link

1.7.   Deleting cookies and history of internet browser

LO2. SEARCH INTERNET

2.1.   Opening search engines using search parameters

2.2.   Saving and presenting search results

2.3.   Creating and saving bookmarks

2.4.   Modifying page setup options and printing information

2.5.   Shutting down and exiting browser

2.6.   Observing OHS and netiquette principles

LEARNING METHODS:

For None Impaired Trains	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video & in <u>Brail format</u>** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary

Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:

Written test	❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/Observation	❖ Brief the instruction or provide them in large text/Brail ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA

LO1. Access internet

- Internet browser is opened and a home page of personal choice set up by setting internet options

- Display/view modes is adjusted to suit personal requirements

- Toolbar is modified to meet user and browsing needs

- Particular site is accessed and retrieved data

- Images are loaded or not loaded depending on modem speed, computer and browser capabilities

- URL is opened to obtain data and browse link

- Cookies and history of internet browser are deleted as precaution from virus infection

LO2. Search internet

- Search engines are opened and search requirements defined using a range of search parameters

- Search results are saved and presented as a report according to the information required

- Bookmarks are created for required web page and saved in associated bookmark folder

- Page set up options is modified and web page or the required information printed

- Browser is shut down and exited

- OHS and netiquette principles are observed through the process

Annex: Resource Requirements

EIS ITS2 M08 0919 Access and Use Internet			
Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Learner)
Learning Materials			
TTLM	- Teacher's Made • Learning Guide • Teaching guide • Assessment Packet Any	5 copies for each	1:5
Textbooks		25	1:1
Reference Books	CompTIA Network+ all in one exam guide 6th edition Basics of Networking	25	1:1
Journals/Publication/ Magazines	- EIS journals(Monthly)		1:25
Learning Facilities & Infrastructure			
Lecture Room	- 8x12m; equipped with IT equipment and internet		1:25
Library	- Multipurpose		
Shelves	- wooden or metal	5	
Locker	- wooden or metal	2	
Cabinet	- metal	1	
Consumable Materials			
Stationery	- Whiteboard marker, printing paper, printer ink		
Flash disk	San disk or similar 16GB	8	1:1
Tools and Equipment's			
ASP ISP	• The internet • data and voice • Current Internet Technologies		
Browser Software	• Internet Explorer , • Mozilla Firefox		
UPS	• 750 Volt Amper	25	
Desktop Computer including its peripherals	Core I5, RAM=4GB, HDD=500GB	25	1:1
Multimedia projector	- LCD	1	1:25
Printer	- Capability of A3 printing - color printing capability	1	1:25
Web cam	-8piexel and above	2	1:13

LEARNING MODULE9	Logo of TVET Provider

TVET-PROGRAMME TITLE: IT Support Service Level II

MODULE TITLE: Implementing Maintenance Procedure

MODULE CODE: EIS ITS2 M09 0919

NOMINAL DURATION: 40 Hours

MODULE DESCRIPTION: This module defines the competence required to set up maintenance procedures to keep equipment and software operating effectively and efficiently.

LEARNING OUTCOMES

At the end of the module the learner will be able to:

   LO1. Determine best practices for equipment and software maintenance

   LO2. Revise practices, where appropriate

   LO3. Identify and analyze IT system components to be maintained

   LO4. Apply maintenance procedures

MODULE CONTENTS:

LO1. Determine best practices for equipment and software maintenance

 1.1. Identifying Equipment and software to be maintained and implemented

 1.2. Identifying Vendor documentation, peer organizations or research information

 1.2. Obtaining user Requirements

 1.3. Documenting maintenance procedure

LO2.   Revise practices, where appropriate

 2.1. Monitoring and reviewing Maintenance operation

 2.2. Identifying Problem areas to meet service-level agreements and considering changes

 2.3. Assessing Changes in consultation with

 2.4. Designing Improvements and implementing maintenance procedure

LO3. Identify and analyze IT system components to be maintained

 3.1.   Determining and documenting Warranty status

 3.2.   Reviewing System architecture and configuration documentation

 3.3. Identifying Critical components and/or software and documenting recommendation

LO4. Apply maintenance procedures

 4.1. Creating Preventative maintenance schedule

 4.2. Identifying and Appling maintenance procedure

 4.3. Documenting Recommended procedure and submitting for approval

 4.4. Giving Orientation to implementing staffs and ensuring maintenance schedule

4.5. Observing *OHS* throughout the process

Learning methods:

For none impaired trainees	Reasonable adjustment for trainees with disability (TWD)			
	Low vision and blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **audio/video & in <u>brail format</u>** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ Facilitate the support of peer trainees ❖ Prepare & use simulation	❖ Use sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary

Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ Provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ Provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ Provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ Prepare the assignment questions in large text/brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

Assessment methods:

Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts/brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ time extension	❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration/observation	❖ Brief the instruction or provide them in large text/brail ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

Lo1. Determine best practices for equipment and software maintenance

- Equipment and software to be maintained and implemented processes re identified to ensure future acquisitions of equipment and software.

- Vendor documentation, peer organizations or research information detailing best practices in equipment and software maintenance are identified to improve system performance and reliability.

- Requirements are obtained from user in the area of equipment maintenance and reliability.

- Procedures are documented for maintenance based upon best practices.

Lo2. Revise practices, where appropriate

- Maintenance operation is monitored and reviewed where appropriate.

- Problem areas including failures are identified to meet service-level agreements, and consider changes to maintenance procedures.

- Changes are assessed in consultation with user, support staff and third party suppliers.

- Improvements are designed and implemented to maintenance procedures.

Lo3. Identify and analyze IT system components to be maintained

- Warranty status of components and/or software is determined and documented according to vendor, project or organizational requirements.

- System architecture and configuration documentation are reviewed for currency status.

- Critical components and/or software are identified and recommendations are documented regarding possible service arrangements.

LO4. Apply maintenance procedures

- Preventative maintenance schedule is created based on cost, business and service-level agreements requirements

- Specific and appropriate maintenance procedure is identified and applied based on cost, business and service-level agreements requirements

- Recommended procedures are documented and submitted for approval in accordance with organizational requirements and service-level agreement

- Implementing staff are oriented on the procedures and ensured to follow the maintenance schedule

- *OHS* is observed throughout the process

Annex: Resource Requirements

<table>
<tr><td colspan="4" align="center">EIS ITS2 M09 0919 Implementing Maintenance Procedures</td></tr>
<tr><td>Category/Item</td><td>Description/ Specifications</td><td>Quantity</td><td>Recommended Ratio (Item: Learner)</td></tr>
<tr><td><i>Learning Materials</i></td><td></td><td></td><td></td></tr>
<tr><td>TTLM</td><td rowspan="2">- Teacher's Made
• Learning Guide
• Teaching guide
• Assessment Packet
Any</td><td>5 copies for each</td><td>1:5</td></tr>
<tr><td>Textbooks</td><td>25</td><td>1:1</td></tr>
<tr><td>Reference Books</td><td>• CompTIA A+ Certification all in one 9th edition
• CompTIA A+ Compete guide</td><td>25</td><td>1:10</td></tr>
<tr><td><i>Learning Facilities & Infrastructure</i></td><td></td><td></td><td></td></tr>
<tr><td>Lecture Room</td><td>- 8x12m; equipped with IT equipment and internet</td><td></td><td>1:25</td></tr>
<tr><td>Library</td><td>- Multipurpose</td><td></td><td></td></tr>
<tr><td>Shelves</td><td>- wooden or metal</td><td>5</td><td></td></tr>
<tr><td>Locker</td><td>- wooden or metal</td><td>2</td><td></td></tr>
<tr><td>Cabinet</td><td>- metal</td><td>1</td><td></td></tr>
<tr><td><i>Consumable Materials</i></td><td></td><td></td><td></td></tr>
<tr><td>Stationery</td><td>- Whiteboard marker, printing paper, printer ink</td><td></td><td></td></tr>
<tr><td>Tools and Equipment's</td><td></td><td></td><td></td></tr>
<tr><td>UPS</td><td>• 750 Volt Amper</td><td>25</td><td></td></tr>
<tr><td>Divider</td><td>• American socket supporter</td><td>13</td><td></td></tr>
<tr><td>Desktop Computer including its peripherals</td><td>Core I5, RAM=4GB, HDD=500GB</td><td>25</td><td>1:1</td></tr>
<tr><td>Multimedia projector</td><td>- LCD</td><td>1</td><td>1.25</td></tr>
<tr><td>Printer</td><td>- Capability of A3 printing
- color printing capability</td><td>1</td><td>1:25</td></tr>
<tr><td>Maintenance toolkit</td><td>- set/case</td><td>5</td><td>1:5</td></tr>
</table>

LEARNING MODULE 10Logo of TVET Provider

TVET - PROGRAMME TITLE: IT Support Service Level II

MODULE TITLE: Maintaining Equipment And Consumables

> **Commented [h3]:** Well done

MODULE CODE: EIS ITS2 M10 0919

NOMINAL DURATION: 30Hours

MODULE DESCRIPTION: This Module defines the competence required to maintain the operation of basic computer hardware and peripherals including the replacement of consumables.

LEARNING OUTCOMES

At the end of the module the learner will be able to:

> **LO1.** Clean equipment
>
> **LO2**. Replace and maintain consumables and supplies
>
> **LO3**. Maintain equipment

MODULE CONTENTS:

LO1. Clean equipment

1.1 Accessing and verifying Cleaning equipment

1.2 Recording and documenting Maintenance actions

1.3 Cleaning equipment

LO2. Replace and maintain consumables and supplies

2.1 Accessing consumables and recording usage information

2.2 Replacing consumables and logging the action undertaken

2.3 Disposing consumables by following environmental guidelines

2.4 Testing equipment

LO3. Maintain equipment

3.1 Identifying Equipment which requires maintenance

3.2 Maintaining Equipment

3.3 Documenting and reporting Maintenance procedures

3.4 Exercising care to prevent interruption of business activities

3.5 Storing unused equipment devices

LEARNING METHODS:				
For None Impaired Trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video & in <u>Brail format</u>** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary

Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:

Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	❖ Brief the instruction or provide them in large text/Brail ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO1. Clean equipment

- Cleaning supplies are accessed and verified for usability on the selected equipment

- Maintenance actions undertaken are recorded and documented according to organizational procedures

- Equipment are cleaned as per manufacturer specifications and in line with organizational manuals

LO2. Replace and maintain consumables and supplies

- Access consumables from storage points and record usage information in line with organizational procedures

- Replace consumables when needed and log the action undertaken

- Dispose of consumables following environmental guidelines

- Test equipment to ensure it is in working order at set time periods and in line with organizational procedures

LO3. Maintain equipment

- Equipment are identified which requires maintenance

- Equipment *is* maintained as required by organizational guidelines and manufacturer specifications.

- Maintenance procedures are documented as required by organizational guidelines.

- Care is exercised to prevent interruption of business activities during maintenance procedures

- Unused equipment devices are stored in line with manufacturer specifications and organizational guidelines

Annex: Resource Requirements

Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Learner)
EIS ITS2 M10 0919 Maintaining Equipment and Consumables			
Learning Materials			
TTLM	- Teacher's Made • Learning Guide • Teaching guide • Assessment Packet Any	5 copies for each	1:5
Textbooks		25	1:1
Reference Books	• IT Essential Hardware and software • A+ guide to hardware managing maintaining and troubleshooting		1:10
Journals/Publication/Maga zines	- EIS journals(Monthly)		1:25
Learning Facilities & Infrastructure			
Lecture Room	- 8x12m; equipped with IT equipment and internet		1:25
Library	- Multipurpose		
Shelves	- wooden or metal	5	
Locker	- wooden or metal	2	
Cabinet	- metal	1	
Consumable Materials			
Blank Disk	- CD-R/RW - DVD/CDRW	5	1:4
Stationery	- Whiteboard marker, printing paper, printer ink		
Flash disk	San disk or similar 16GB	8	1:1
Tools and Equipment's			
UPS	• 750 Volt Amper	25	
Divider	• American socket supporter	13	
Desktop Computer including its peripherals	- Core I5, RAM=4GB, HDD=500GB	25	1:1
Multimedia projector	- LCD	1	1:25
Printer	- Capability of A3 printing - color printing capability	1	1:25
Network toolkit	- set/case	5	1:5
Maintenance toolkit	- set/case	5	1:5

LEARNING MODULE 11	Logo of TVET Provider

TVET-PROGRAMME TITLE: IT SUPPORT SERVICE LEVEL II

MODULE TITLE: Applying Problem – Solving Techniques to Routine Malfunction   Commented [h4]: ✓

MODULE CODE: EIS ITS2 M11 0919

NOMINAL DURATION: 40Hours

MODULE DESCRIPTION: This module defines the competence required to apply problem solving techniques to determine the origin and plan for the resolution of à routine malfunction.

LEARNING OUTCOMES

At the end of the module the learner will be able to:

    LO1. Identify problems

    LO2. Determine fundamental / root causes of the problem

    LO3. Recommend solutions to problem

MODULE CONTENTS:

LO1. Identify problems

1.1.   Identifying Hardware, software, user or procedural problem to appropriate person

1.2.   Defining and determining Problems

1.3.   Identifying and documenting condition of Hardware, software, user and problem

LO2. Determine fundamental / root causes of the problem

2.1. Identifying possible causes

2.2. Developing possible cause statement

2.3. Identifying fundamental causes and conducting investigation

LO3. Recommend solutions to problem

3.1. Identifying potential solution to problem

3.2. Recommendation about possible solutions

3.3. Planning Implementation and evaluation of solutions

3.4. Documenting and submitting recommended solutions

LEARNING METHODS:				
For None Impaired Trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture-discussion	❖ Provide large print text ❖ Prepare the lecture in **Audio/video & in <u>Brail format</u>** ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop
Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipment's/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary

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Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers
Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:

Interview			❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
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Demonstration /Observation	❖ Brief the instruction or provide them in large text/Brail ❖ Time extension		❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

Assessment criteria

Lo1. Identify problems

- Hardware, software, user or procedural problem areas are identified to appropriate person in the organization

- Problems to be investigated are defined and determined

- Current conditions of the hardware, software, user and problems are objectively identified and documented

Lo2. Determine fundamental / root causes of the problem

- Possible causes are identified based on experience and the use of diagnostic tools and analytical techniques.

- Possible cause statements are developed based on findings

- Fundamental causes are identified per results of diagnosis and investigation conducted.

LO3. Recommend solutions to problem

- Potential solutions to problems are identified

- Recommendations about possible solutions are developed, documented, ranked and presented to the appropriate person for decision

- Implementation and evaluation of solutions are planned

- Recommended solutions are documented and submitted to the appropriate person for confirmation

Annex: Resource Requirements

	EIS ITS2 M110919 Applying Problem -Solving Techniques to Routine Malfunction			
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	*Learning Materials*			
1.	TTLM	- Teacher's Made • Learning Guide • Teaching guide • Assessment Packet	5 copies for each	1:5
2.	Textbooks	Any	25	1:1
3.	Reference Books	• IT Essential Hardware and software • A+ guide to hardware managing maintaining and troubleshooting	25	1:1
4.	Journals/Publication/Magazines	- ICT journals(Monthly)		1:25
B.	*Learning Facilities & Infrastructure*			
1	Lecture Room	- 8x12m; equipped with IT equipment and internet		1:25
2.	Library	- Multipurpose		
3.	Shelves	- wooden or metal	5	
4.	Locker	- wooden or metal	2	
5.	Cabinet	- metal	1	
C.	*Consumable Materials*			
1.	Blank Disk	- CD-R/RW - DVD/CDRW	5	1:4
2.	Stationery	- Whiteboard marker, printing paper, printer ink		
3	Flash disk	San disk or similar 16GB	8	1:1
D.	**Tools and Equipment**			
1	Samples			
2	Operating systems	Any operating system that has multi-user ability, Linux, Mac OS, Windows	7	1:25
3	ASP ISP	Current Internet Technologies		
4	UPS	750 Volt Ampere	25	
5	Divider	American socket supporter	13	
6	Desktop Computer including its peripherals	Core I5, RAM=4GB,HDD=500GB	25	1:25
7	Multimedia projector	- LCD	1	1:25
8	Printer	- Capability of A3 printing - color printing capability	1	Per section
9	Network toolkit	- set/case	5	1:5
10	Maintenance toolkit	- set/case	5	1:5

11	Scanner	- HP 2055	2	1:13
12	Web cam	-8piexel and above	2	1:13

LEARNING MODULE -12	Logo of TVET Provider

TVET-PROGRAMME TITLE: : IT SUPPORT SERVICE LEVEL II
MODULE TITLE: Develop Business Practice
MODULE CODE: EIS ITS2 M012 0919
NOMINAL DURATION: ..... Hours
MODULE DESCRIPTION: This module covers knowledge, skills and attitude required to establish a business operation from a planned concept. It includes researching the feasibility of establishing a business operation, planning the setting up of the business, implementing the plan and reviewing operations once commenced, customer handling, developing and maintaining business relationships.

LO.1 Identify business opportunities and business skills
    LO.2 Plan for the establishment of business operation
    LO.3 Implement business development plan
    LO.4 Review implementation process and take corrective measures
    LO.5.Establish contact with customers and clarify needs of customer
    LO.6. Develop and Maintain Business Relationship

MODULE CONTENTS:
 LO.1 Identify business opportunities and business skills
     1.1 Concept of paradigm shift and means of divergent thinking
     1.2 Strategies to look beyond the boundaries
     1.3 Unusual business opportunities
     1.4 Feasibility of business skills and personal attributes
     1.5 Problems as a pivotal source of business opportunity.
     1.6 Feasibility study of specialist and relevant parties
     1.7 Impact of emerging or changing technology on business
     1.8 Assessing practicability of business opportunity in line with
     1.9 Revising business plan
 	
 LO.2 Plan for the establishment of business operation
     2.1 Determining and documenting organizational structure and operations
     2.2 Developing and documenting procedures
     2.3 Securing financial backing
     2.4 Business legal and regulatory requirements
     2.5 Determining human and physical resources
     2.6 Recruitment and procurement strategies
 LO.3 Implement business development plan

3.1 Obtaining Physical and human resources
3.2 Establishing operational unit
3.3 Discussing and understanding Simulations on the development plan.
3.4 Implementation manual
3.5 Marketing the business operation
3.6 Developing and implementing monitoring process
3.7 Maintaining Legal documents ,recording and updating
3.8 Negotiating and securing contracts with relevant people
3.9 Options for leasing/ownership of business premises

LO.4 Review implementation process and take corrective measures

4.1 Developing and implementing review process
4.2 Identifying improvements in business operation
4.3 Implementing and monitoring improvements

LO.5.Establish contact with customers and clarify needs of customer

5.1.   Persuasion strategies
5.2.   Enterprise policies and procedures for customer handling
5.3.   Maintenance of welcoming customer environment
5.4.   Greeting customer warmly
5.5.   Providing Information to satisfy customer needs
5.6.   Gathering information on customers and service history
5.7.   Maintenance of customer data
5.8.   Assessing customer needs
5.9.   Documenting customer details
5.10. Negotiations in a business-like and professional manner..
5.11. Maximizing benefits for all parties in
5.12. communicating results of negotiations to appropriate colleagues and
       stakeholders
5.13. Opportunities to maintain regular contact with customers

LO.6. Develop and Maintain Business Relationship

6.1.   Describing features and benefits of products/services
6.2.   Discussing alternative sources of information/advice
6.3.   Seeking, reviewing and acting upon Information needed pro-actively
6.4.   Honouring agreements
6.5.   Making adjustments to agreements with customers & colleagues
6.6.   Nurturing relationships through regular contact
6.7.   Effective interpersonal and communication styles

LEARNING METHODS:				
For None Impaired Trainees	**Reasonable Adjustment for Trainees with Disability (TWD)**			
	Low Vision and Blind	**Deaf**	**Hard of hearing**	**Physical impairment**
Lecture discussion	❖ Provide large print text ❖ Prepare the lecture in Audio/video & in Brail format ❖ Organize the class room seating arrangement to be accessible to trainees ❖ Write short notes on the black/white board using large text ❖ Make sure the luminosity of the light of class room is kept ❖ Use normal tone of voice ❖ Encourage trainees to record the lecture in audio format ❖ Provide Orientation on the physical feature of the work shop ❖ Summarize main points	❖ Assign sign language interpreter ❖ Arrange the class room seating to be conducive for eye to eye contact ❖ Make sure the luminosity of the light of class room is kept ❖ Introduce new and relevant vocabularies ❖ Use short and clear sentences ❖ Give emphasis on visual lecture and ensure the attention of the trainees ❖ Avoid movement during lecture time ❖ Present the lecture in video format ❖ Summarize main points	❖ Organize the class room seating arrangement to be accessible to trainees ❖ Speak loudly ❖ Ensure the attention of the trainees ❖ Present the lecture in video format ❖ Ensure the attention of the trainees	❖ Organize the class room seating arrangement to be accessible for wheelchairs users. ❖ Facilitate and support the trainees who have severe impairments on their upper limbs to take note ❖ Provide Orientation on the physical feature of the work shop

Demonstration	❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation	❖ use Sign language interpreter ❖ Use video recorded material ❖ Ensure attention of the trainees ❖ Provide structured training ❖ Show clear and short method ❖ Use gesture ❖ Provide tutorial support (if necessary)	❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary)	❖ Facilitate and support the trainees having severe upper limbs impairment to operate equipments/ machines ❖ Assign peer trainees to assist ❖ Conduct close follow up ❖ Provide tutorial support (if necessary
Group discussion	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Brief the thematic issues of the work	❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member	❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group members to speak loudly	❖ Introduce the trainees with their peers

Exercise	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies	❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training	❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	❖ prepare the assignment questions in large text/Brail ❖ Encourage the trainees to prepare and submit the assignment in large texts/Brail ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy	❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material	

ASSESSMENT METHODS:				
Interview		❖ Use sign language interpreter ❖ Ensure or conform whether the proper communication was conducted with the trainee through the service of the sign language interpreter ❖ Use short and clear questioning ❖ Time extension	❖ Speak loudly ❖ Using sign language interpreter if necessary	❖ Use written response as an option for the trainees having speech challenges
Written test	❖ Prepare the exam in large texts/Brail ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension	❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers if necessary.	❖ Use oral response as an option to give answer for trainees having severe upper limb impairment ❖ Time extension for trainees having severe upper limb impairment
Demonstration /Observation	❖ Brief the instruction or provide them in large text/Brail ❖ Time extension	❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension	❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension	❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO.1 Identify business opportunities and business skills
- The concept of paradigm shift and means of divergent thinking are elaborated and strategies to look beyond the boundaries are discussed.
- Unusual business opportunities are identified.
- Feasibility on business skills and personal attributes is assessed and matched against those perceived as necessary for a particular business opportunity.
- New behavior on how problems can be the pivotal source of business opportunity is elaborated and experience taken.
- Assistance sought with feasibility study of specialist and relevant parties is discussed, as required.
- Impact of emerging or changing technology, including e-commerce, on business operations is evaluated.
- Practicability of business opportunity is assessed in line with perceived business risks, returns sought, personal preferences and resources available.
- Business plan is revised in accordance with the identified opportunities.

LO.2 Plan for the establishment of business operation
- Organizational structure and operations are determined and documented.
- Procedures are developed and documented to guide operations.
- Financial backing is secured for business operation.
- Business legal and regulatory requirements are identified and compiled.
- Human and physical resources required to commence business operation are determined.
- Recruitment and procurement strategies are developed.

LO.3 Implement business development plan
- Physical and human resources are obtained to implement business operation.
- Operational unit is established to support and coordinate business operation.
- Simulations on the development plan are well discussed and understood.
- Implementation manual is discussed and understood.
- Marketing the business operation is undertaken.
- Monitoring process is developed and implemented for managing operation.
- Legal documents are carefully maintained and relevant records kept and updated to ensure validity and accessibility.
- Contractual procurement rights for goods and services including contracts with relevant people are negotiated and secured as required in accordance with the business plan.
- Options for leasing/ownership of business premises are identified and contractual arrangements completed in accordance with the business plan.

LO.4 Review implementation process and take corrective measures
- Review process is developed and implemented for implementation of business operation.
- Improvements in business operation and associated management process are identified.
- Identified improvements are implemented and monitored for effectiveness.

LO.5.Establish contact with customers and clarify needs of customer
- Persuasion strategies are developed and discussed.
- Welcoming customer environment is maintained and Customer is greeted warmly according to enterprise policies and procedures.
- Information is provided to satisfy customer needs.
- Information on customers and service history is gathered for analysis.
- Customer data is maintained to ensure database relevance and currency.
- Customer needs are accurately assessed against the products/services of the enterprise.
- Customer details are documented clearly and accurately in required format.
- Negotiations are conducted in a business-like and professional manner.
- Benefits for all parties are maximized in the negotiation through use of established techniques and in the context of establishing long term relationships.
- The results of negotiations are communicated to appropriate colleagues and stakeholders within appropriate timeframes.
- Opportunities to maintain regular contact with customers are identified and taken-up.

LO.6. Develop and Maintain Business Relationship
- Features and benefits of products/services provided by the enterprise are described/ recommended to meet customer needs.
- Alternative sources of information/advice are discussed with the customer.
- Information needed is pro-actively sought, reviewed and acted upon to maintain sound business relationships.
- Agreements are honored within the scope of individual responsibility.
- Adjustments to agreements are made in consultation with the customer and information shared with appropriate colleagues.
- Relationships are nurtured through regular contact and use of effective interpersonal and communication styles.

Annex: Resource Requirements

<table>
<tr><th colspan="5" align="center">Developing Business Practice</th></tr>
<tr><th>Item No.</th><th>Category/Item</th><th>Description/ Specifications</th><th>Quantity</th><th>Recommended Ratio (Item: Trainee)</th></tr>
<tr><td>A.</td><td>Learning Materials</td><td></td><td></td><td></td></tr>
<tr><td>1</td><td>TTLM.</td><td>Prepared by the trainer</td><td>25</td><td>1:1</td></tr>
<tr><td>2</td><td>Textbook</td><td></td><td>25</td><td>1:1</td></tr>
<tr><td>3</td><td>Reference book</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>B.</td><td>Learning Facilities & Infrastructure</td><td></td><td></td><td></td></tr>
<tr><td>1</td><td>Lecture room / work shop</td><td>5m*5m</td><td>1</td><td>1:25</td></tr>
<tr><td>2</td><td>Library</td><td>10m*10m</td><td>1</td><td>1:25</td></tr>
<tr><td>C.</td><td>Consumable Materials</td><td></td><td></td><td></td></tr>
<tr><td>1</td><td>Copy paper</td><td>A4 size</td><td>5 rim</td><td>1:5</td></tr>
<tr><td>D.</td><td>Tools and Equipments</td><td></td><td></td><td></td></tr>
</table>

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