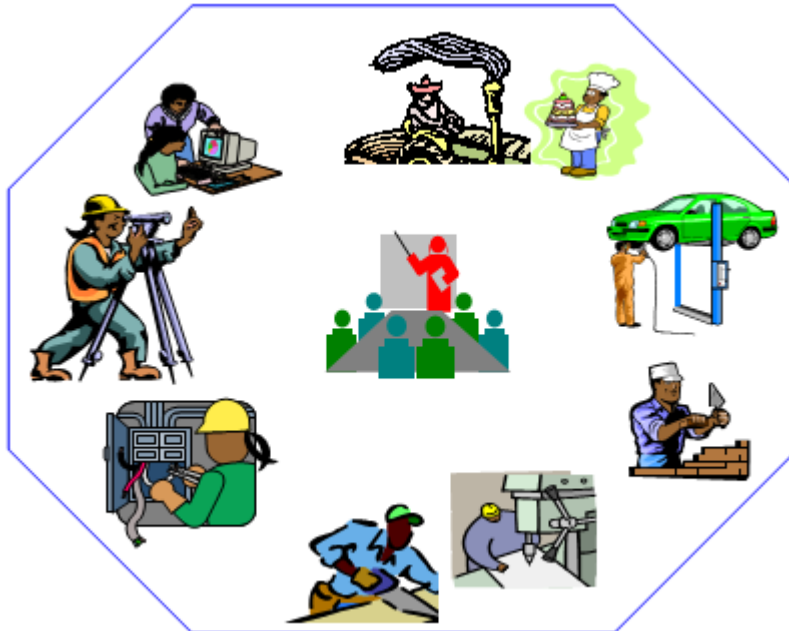


AUTOMOTIVE MECHANICS

LEVEL – V



CURRICULUM

**Based on December, 2021 (Version- 3) Occupational
Standard (OS)**

**March, 2022
Addis Ababa , Ethiopia**

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 comparable TVET-Delivery. The Curricula help to facilitate the training 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 professional experts from different Regional TVET Bureaus, colleges, Industries, Institutes and universities based on the occupational standard for Automotive Mechanics Level V.

The curriculum development process has been actively supported and facilitated by ***Ministry of Labor and Skills***

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1. TVET-Program Design

1.1. TVET-Program Title: Automotive Mechanics Level -V

1.2. TVET-Program Description

The Program is designed to develop all the necessary knowledge, skill and attitude of the trainees to the standard required by the occupation. The contents of this program are in line with the occupational standard. The Trainees who successfully completed the Program will be qualified to work as an Automotive Mechanic Level - V 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 Automotive Technology.

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 Develop and apply vehicle Mechanical System Modifications, Develop and apply Vehicle Hydraulic System Modifications Develop and Apply Vehicle Pneumatic System Modifications, Perform Accident Analysis & Implement Restoring Options, Manage Environmental protection Process, Manage People's Performance and Relationships, Develop Specifications and Documentation, Monitor project Costing System in accordance with the performance criteria and evidence guide described in the OS.

1.3. TVET-Program Training Outcomes

The expected outputs of this program are the acquisition and implementation of the following units of competences:

EIS AUM5 01 1221	Develop and apply vehicle Mechanical System Modifications
EIS AUM5 02 1221	Develop and apply Vehicle Hydraulic System Modifications
EIS AUM5 03 1221	Develop and Apply Vehicle Pneumatic System Modifications
EIS AUM5 04 1221	Perform Accident Analysis & Implement Restoring Options
EIS AUM5 05 1221	Manage Environmental protection Process
EIS AUM5 06 1221	Manage People's Performance and Relationships
EIS AUM5 07 1221	Develop Specifications and Document
EIS AUM5 08 1221	Monitor project Costing System

1.4. Duration of the TVET-Program

The Program will have duration of 375 *hours* including the on school/ Institution training and on-the-job practice or cooperative training time. Such cooperative training based on realities of the industry, nature of the occupation, location of the TVET institution, and other factors will be considered in the training delivery to ensure that trainees acquire practical and workplace experience.

No	Unit competency	TVET Institution training		Cooperative training	Total hours	Remarks
		Theory	Practical			
1.	Develop and apply vehicle Mechanical System Modifications	20	30	10	60	
2.	Develop and apply Vehicle Hydraulic System Modifications	20	20	10	50	
3.	Develop and Apply Vehicle Pneumatic System Modifications	20	20	10	50	
4.	Perform Accident Analysis & Implement Restoring Options	20	20	10	50	
5.	Manage Environmental protection Process	20	10	5	35	
6.	Manage People's Performance and Relationships	30	5	5	40	
7.	Develop Specifications and Document	30	10	10	50	
8.	Monitor project Costing System	30	5	5	40	
Total		190	120	65	375	

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 V.

The trainee can exit after successfully completing the modules in one level and will be awarded the equivalent institutional certificate on the level completed. However, only institutional certificate of training accomplishment will be awarded.

1.6. Target Groups

Any applicant including disabilities who meets the entry requirement items addressed under 1.7 and capable of participating in the training 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 **Ministry of Labor and Skills**.

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 time spent by the trainees in the real work place/ 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.

Hence based on the nature of the occupation, location of the TVET institutions, and interest of the industry alternative mode of cooperative training such as apprenticeships, internship and traineeship will be employed. In addition, in the areas where industry is not sufficiently available the established production and service centers/learning factories in TVET institutions will be used as cooperative training places. The Training-Institution and identified companies have forged an agreement to co-operate with regard to the implementation of this program.

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1.9. TVET-Program Structure

Unit of Competence	Module Code & Title	Training Outcomes	Duration (In Hours)
EIS AUM5 01 1221 Develop and apply vehicle Mechanical System Modifications	EIS AUM5 M01 0322 Developing and applying vehicle Mechanical System Modifications	<ul style="list-style-type: none"> • Identify and confirm modification requirements • Develop and validate modification specifications document • Apply and test modification specification • Clean up work area and maintain equipment 	60
EIS AUM5 02 1221 Develop and apply Vehicle Hydraulic System Modifications	EIS AUM5 M02 0322 Developing and applying Vehicle Hydraulic System Modifications	<ul style="list-style-type: none"> • Identify and confirm modification requirements • Develop and validate modification specifications • Apply and test modification • Clean up work area and maintain equipment 	50
EIS AUM5 03 1221 Develop and Apply Vehicle Pneumatic System Modifications	EIS AUM5 M03 0322 Developing and Applying Vehicle Pneumatic System Modifications	<ul style="list-style-type: none"> • Identify and confirm modification requirements • Develop and validate modification specifications • Apply and test modification 	50

			<ul style="list-style-type: none"> • Clean up work area and maintain equipment 		
EIS AUM5 04 1221	Perform Accident Analysis & Implement Restoring Options	EIS AUM5 M04 0322	Performing Accident Analysis & Implementing Restoring Options	<ul style="list-style-type: none"> • Identify and confirm the work requirement • Prepare to perform analysis • Apply complex analysis procedures 	50
EIS AUM5 05 1221	Manage Environmental protection Process	EIS AUM5 M05 0322	Managing Environmental protection Process	<ul style="list-style-type: none"> • Prepare environmental management plan for the organization • Organize implementation of environmental plan • Monitor implementation • Review and enhance environmental management plan 	35
EIS AUM5 06 1221	Manage People's Performance and Relationships	EIS AUM5 M06 0322	Managing People's Performance and Relationships	<ul style="list-style-type: none"> • Allocate and Confirm work performance • Develop an open environment and Assess performance • Identify significant issues and provide feedback • Proactively manage and resolve issues 	40
EIS AUM5 07 1221	Develop	EIS AUM5 M07 0322	Developing	<ul style="list-style-type: none"> • Identify requirements • Prepare and develop specifications 	50

Specifications and Document	Specifications and Document	<ul style="list-style-type: none"> • Apply procedure • Document specifications and procedures 	
EIS AUM5 08 1221 Monitor project Costing System	EIS AUM5 M08 0322 Monitoring project Costing System	<ul style="list-style-type: none"> • Determine and supervise resources required for the project • Manage the preparation of schedule of project expenditure • Prepare curves showing projected cash flow and payments • Maintain continuous checks on expenditure and evaluate outcomes • Prepare final cost report 	40

*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 training outcomes are achieved. The specific training outcomes are stated in the modules. In assessing them, verifiable and observable indicators and standards shall be used.

The *formative assessment* is incorporated in the training modules and form part of the training process. Formative evaluation provides the trainee with feedback regarding success or failure in attaining training outcomes. It identifies the specific training 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 is 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 of institutional Assessment implementation guidelines..

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 above A Level who have satisfactory practical experiences or equivalent qualifications.

LEARNING MODULE 01	
TVET-PROGRAMME TITLE:	Automotive Mechanics Level -V
MODULE TITLE:	Developing and applying vehicle Mechanical System Modifications
MODULE CODE_:	<u>EIS AUM5 M01 0322</u>
NOMINAL DURATION	60 hours
MODULE DESCRIPTION: This module covers the knowledge, skill and attitude required to analyze, develop, apply and validate significant modifications to existing mechanical systems in order to vary or enhance performance. This includes the preparation and application of specifications and processes complying with safety, legal and commercial obligations.	
LEARNING OUTCOMES At the end of the module the trainee will be able to: LO1. Identify and confirm modification requirements LO2. Develop and validate modification specifications LO3. Apply and test modification LO4. Clean up work area and maintain equipment	
MODULE CONTENTS: LO1. Identify and confirm modification requirements 1.1 Concept of mechanical theory 1.2 OHS requirements 1.3 Purpose of modification 1.4 Criteria and requirements of modification LO2. Develop and validate modification specifications 2.1 Accessing and interpreting benchmark specifications 2.2 Identifying and documenting criteria of modification 2.3 Selecting proposed modification methods 2.4 Selecting material and processes 2.5 Documenting modification specifications LO3. Apply and test modification 3.1 Applying proposed modification 3.2 Applying tests and testing equipment 3.3 Verifying test results and diagnostic findings 3.4 Incorporating variation in modification	

3.5 Documenting and providing Information

LO.4 Cleanup work area and maintain equipment

4.1 Collecting and storing materials

4.2 Removing Waste and scrap

4.3 Inspecting work area and equipment

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ 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) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow

		<ul style="list-style-type: none"> ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Time extension 	<ul style="list-style-type: none"> up ❖ Time extension
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ASSESSMENT CRITERIA:**LO.1 Identify and confirm modification requirements**

- OHS requirements, including regulatory requirements, equipment and system isolation requirements and personal protection needs are observed throughout the work based on guidelines.
- Purpose and objectives of the modification are identified from an analysis of inputs and confirmed with the customer according to pre-set requirement.
- Outline options for achieving the required purpose and objectives are identified, framed and presented to the customer prior to proceeding following needs of enterprise.
- Possible legal and safety impacts of the modification are considered and responded to in accordance with regulatory and enterprise obligations and practices
- Necessary tools, equipment and materials are identified and made ready for use

LO.2. Develop and validate modification specifications

- Benchmark specifications for the existing mechanical system are accessed and interpreted according to guideline.
- Criteria to be used in the selection of the modification method and in the evaluation of the outcomes are identified and documented based on manuals/specification.
- Proposed modification method is selected following the identification, consideration and evaluation of the full range of available and options.
- Selected option including material choices and processes is developed in detail and progressively validated against the established criteria.
- Modification specification is documented to industry and enterprise standards according to workplace guideline.

LO.3 Apply and test modification

- Selected modification method and process is followed in accordance with the established specifications
- Modification is completed using equipment, tooling and materials in accordance with accepted industry standards and practices
- Tests and testing equipment are applied in accordance with regulatory requirements, manufacturer/component supplier specifications and modification specification.
- Test results and other diagnostic findings are verified, if necessary, by using reliable alternate or optional processes based on criteria.

- Variations necessitated during the modification process or as a result of testing are incorporated into the modification specification following working formats.
- Information and detail related to the modification is documented and provided to the appropriate parties in accordance with regulatory and commercial obligations

LO4. Clean up work area and maintain equipment

- Materials that can be reused is collected and stored based on guideline.
- Testing equipment and other support materials are cleaned, maintained and prepared ready for further use or stored in accordance with manufacturer/component supplier specifications and enterprise requirements.
- Waste and scrap is removed following workplace procedures.
- Unserviceable equipment is tagged and faults identified in accordance with workplace procedures.
- Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures.

Annex: Resource Requirements

<u>EIS AUM5 M01 0322</u>		Developing and applying vehicle Mechanical System Modifications		
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	prepared by ministry of labor and skills	25 Pcs	1:1
2.	Reference Books			
1	Theory of Machines	R.S khurmi J.K Gupta	5 Pcs	1:5
2	Automotive Technology 7 th Edition	Jack Erjavec , Rob Thompson	5 Pcs	1:5
3	Automotive engine 6 th Edition	Tim Gilles	5 Pcs	1:5
4	The Car Care Book 2 nd Edition	k.venkata reddy	5 Pcs	1:5
5	Theory and design for mechanical measurement 7 th edition	Richard S, Figliola , Donald E.Beasley	5 Pcs	1:5
3.	Journals/Publication/Magazines			
B. Learning Facilities & Infrastructure				
1.	Class room	31.5 m ²	1 Pcs	1:25
2.	Library	School library	1 pcs	1:25
3.	Whiteboard /Blackboard	240 x 120 cm	1 Pcs	1:25
4.	Arm Chair	55 X 100 x 70	25 Pcs	1:1
5.	Workshop	100 m ²	1 Pcs	1:25
6.	LCD/overhead projector	Standard	1 pcs	1:25
C. Consumable Materials				

3.	Kerosene	Fuel	10 liter	
3.	Cotton clothe	1meter	5 Pcs	1:5
4.	Sand paper	#100	2pack	
D. Tools and Equipments				
1.	Combination wrench	6mm-32mm	5set	1:5
2	socket wrench	6mm-32mm	5set	1:5
3	Screw driver(flat & Philips)	Standard	5set	1:5
4	Open end wrench	6mm-32mm	5set	1:5
3	Air compressor	150 liter	1pcs	1:25
4	Compression tester(diesel& gasoline)	Analogue	1pcs each	1:25
5	Files	Flat ,round ,	1pcs each	1:25
6	Tachometer(rpm meter)	Digital	1pcs	1:25
8	Feeler gauge	Metric	5pcs	1:5
9	Vacuum gauge	Analogue	1pcs	1:25
10			1pcs	1:25
11	Wire brush	Metallic	5pcs	1:5
12	Oil can	Metal continuer	5pcs	1:5
13	Stethoscope	Sound Detector	1pcs	1:25
14	Spark plug cleaner	Electrical AC	1pcs	1:25

LEARNING MODULE 02	
TVET PROGRAMME TITLE:	Automotive Mechanic Level V
MODULE TITLE:	Developing and Applying Vehicle Hydraulic System Modifications
MODULE CODE:	<u>EIS AUM5 M02 0322</u>
NOMINAL DURATION:	50 hours
MODULE DESCRIPTION: This module covers the knowledge, skill and attitude required to analyze, develop, apply and validate significant modifications to existing hydraulic systems in order to vary or enhance performance. It involves identifying the modification requirement, developing the modification specifications, applying and testing the modification, and completing workplace processes and documentation.	
LEARNING OUTCOMES At the end of the module the trainee will be able to: LO1. Identify and confirm modification requirements LO2. Develop and validate modification specifications document LO3. Apply and test modification specifications LO4. Clean up work area and maintain equipment	
MODULE CONTENTS: LO1. Identify and confirm modification requirements 1.1. OHS requirements 1.2. Theory and principles of hydraulics 1.3. Identifying and confirming modifications 1.4. Considering and responding impacts of modification LO2. Develop and validate modification specifications document 2.1 Assessing and interpreting benchmark specifications 2.2 Identifying and proposing modification methods 2.3 Selecting materials and processes 2.4 Documenting modification LO3. Apply and test modification specifications 3.1 Accepting and completing modification 3.2 Applying tests and testing equipment 3.3 Verifying test results and diagnostic findings	

LO4. Clean up work area and maintain equipment

4.1 Collecting reused materials

4.2 Cleaning testing and maintaining equipment

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ 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) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow

		<ul style="list-style-type: none"> ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Time extension 	<ul style="list-style-type: none"> up ❖ Time extension
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ASSESSMENT CRITERIA:

LO.1 Identify and confirm modification requirement

- OHS requirements, including regulatory requirements, equipment and system isolation requirements and personal protection needs are observed throughout the work based on work place procedures.
- Purpose and objectives of the modification are identified from an analysis of inputs and confirmed with the customer in line with requirements.
- Outline options for achieving the required purpose and objectives are identified, framed and presented to the customer prior to proceeding according to needs of enterprise.
- Possible legal and safety impacts of the modification are considered and responded to in accordance with regulatory and enterprise obligations and practices.

LO.2 Develop and validate modification specification

- Benchmark specifications for the existing pneumatic system are accessed and interpreted based on guideline.
- Criteria to be used in the selection of the modification method and in the evaluation of the outcomes are identified and documented following manuals/specifications.
- Proposed modification method is selected following the identification, consideration and evaluation of the full range of available and relevant options
- Selected option including material choices and processes is developed in detail and progressively validated against the established criteria
- Modification specification is documented to industry and enterprise standards based on guideline.

LO.3 Apply and test modification specification

- Selected modification method and process is followed in accordance with the established specifications
- Modification is completed using equipment, tooling and materials in accordance with accepted industry standards and practices
- Tests and testing equipment are applied in accordance with regulatory requirements, manufacturer/component supplier specifications and modification specification
- Test results and other diagnostic findings are verified, if necessary, by using reliable alternate or optional processes based on criteria.
- Variations necessitated during the modification process or as a result of testing are incorporated into the modification specification following working format.
- Information and detail related to the modification is documented and provided to the

appropriate parties in accordance with regulatory and commercial obligations.

LO.4 Cleanup work area and maintain equipment

- Materials that can be reused are collected and stored based on working procedures.
- Testing equipment and other support materials are cleaned, maintained and prepared ready for further use or stored in accordance with manufacturer/component supplier specifications and enterprise requirements.
- Waste and scrap is removed following workplace procedures
- Unserviceable equipment is tagged and faults identified in accordance with workplace procedure.
- Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures

Annex: Resource Requirements

EIS AUM5 M03 0322		Developing and Applying Vehicle Hydraulic System Modifications		
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	<i>Learning Materials</i>			
1.	TTLM	Prepared by ministry of labor and skills	25 Pcs	1:1
2.	Reference Books			
3.1	Basic hydraulics 1 st edition	Elsevier	25 Pcs	1: 1
3.2	Principle of hydraulic system design 2 nd edition	Steven wilier 06/08/2006	25 Pcs	1: 1
4.	Journals/Publication/Magazines			
B.	<i>Learning Facilities & Infrastructure</i>			
1.	Compressor	25 L	1	1:25
2.	Hydraulic circuit	Model type	5	1:5
3.				
C.	<i>Consumable Materials</i>			
1	Oil	Hydraulic	25 L	1:1
2	Detergent	Liquid	5 L	1:5
5	Rag	Cotton	25kg	1:1
D.	<i>Tools and Equipments</i>			
1.	Cylinder	Double acting	5 pcs	1:5
2	Cylinder	Single acting	5 pcs	1:5
3	Wrenches	Different type	5 set	1:5
4				

LEARNING MODULE 03	
TVET-PROGRAMME TITLE:	Automotive Mechanics level V
MODULE TITLE:	Developing and Applying Vehicle Pneumatic System Modifications
MODULE CODE:	<u>EIS AUM5 M03 0322</u>
NOMINAL DURATION:	50 hours
MODULE DESCRIPTION: This module covers the knowledge, skill and attitude required to analyze, develop, apply and validate significant modifications to existing pneumatic systems in order to vary or enhance performance. This includes the preparation and application of specifications and processes complying with safety, legal and commercial obligations.	
LEARNING OUTCOMES At the end of the module the trainee will be able to: LO1. Identify and confirm modification requirement LO2. Develop and validate modification specification LO3. Apply and test modification specification LO4. Clean up work area and maintain equipment	
MODULE CONTENTS: LO1. Identify and confirm modification requirement 1.1. Occupational health and safety 1.2. Objective and purpose of modification 1.3. Identifying tools and equipment 1.4. Concepts and principles of automotive pneumatic systems LO2. Develop and validate modification specifications document 2.1 Assessing and interpreting benchmark specifications 2.2 Identifying and proposing modification methods 2.3 Selecting materials and processes 2.4 Documenting modification LO3. Apply and test modification specifications 3.1 Accepting and completing modification 3.2 Applying tests and testing equipment 3.3 Verifying test results and diagnostic findings LO4. Clean up work area and maintain equipment 4.1. Collecting and storing materials 4.2. Cleaning testing and maintaining equipment	

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ 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) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary

		❖ Introduce new and relevant vocabularies	attention in the process/ practical training	
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO.1 Identify and confirm modification requirement

- OHS requirements, including regulatory requirements, equipment and system isolation requirements and personal protection needs are observed throughout the work based on work place procedures.
- Purpose and objectives of the modification are identified from an analysis of inputs and confirmed with the customer in line with requirements.
- Outline options for achieving the required purpose and objectives are identified, framed and presented to the customer prior to proceeding according to needs of enterprise.
- Possible legal and safety impacts of the modification are considered and responded to in accordance with regulatory and enterprise obligations and practices

LO.2 Develop and validate modification specification

- Benchmark specifications for the existing pneumatic system are accessed and interpreted based on guideline.
- Criteria to be used in the selection of the modification method and in the evaluation of the outcomes are identified and documented following manuals/specifications.
- Proposed modification method is selected following the identification, consideration and evaluation of the full range of available and relevant options
- Selected option including material choices and processes is developed in detail and progressively validated against the established criteria
- Modification specification is documented to industry and enterprise standards based on guideline.

LO.3 Apply and test modification specification

- Selected modification method and process is followed in accordance with the established specifications
- Modification is completed using equipment, tooling and materials in accordance with accepted industry standards and practices
- Tests and testing equipment are applied in accordance with regulatory requirements, manufacturer/component supplier specifications and modification specification
- Test results and other diagnostic findings are verified, if necessary, by using reliable alternate or optional processes based on criteria.
- Variations necessitated during the modification process or as a result of testing are

incorporated into the modification specification following working format.

- Information and detail related to the modification is documented and provided to the appropriate parties in accordance with regulatory and commercial obligations.

LO.4 Cleanup work area and maintain equipment

- Materials that can be reused are collected and stored based on working procedures.
- Testing equipment and other support materials are cleaned, maintained and prepared ready for further use or stored in accordance with manufacturer/component supplier specifications and enterprise requirements.
- Waste and scrap is removed following workplace procedures
- Unserviceable equipment is tagged and faults identified in accordance with workplace procedure.
- Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures

Annex: Resource Requirements

EIS AUM5 M03 0322		Developing and Applying Vehicle Pneumatic System Modifications		
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	prepared by ministry of labor and skills	5 Pcs	1:5
2. Reference Books				
2.1	Pneumatic Drives: System Design, Modelling and Control 2007th Edition	Peter Beater (Author)	5 Pcs	1:5
2.2	How to Repair Automotive Air-Conditioning & Heating Systems	Jerry Clemons (Author) 09/ 10/ 2019	5 Pcs	1:5
2.3	Automotive Technician Training	Tom Denton	5 Pcs	1:5
4.	Journals/Publication/Magazines			
B. Learning Facilities & Infrastructure				
1.				
2.				
3.				
C. Consumable Materials				
1	Rag	Cotton	25 kg	1:1
2	Detergent	Liquid	5 L	1:5
3	Oil	Transmission oil	25 L	1:5
D. Tools and Equipments				
1. Tools				
	Hand tools	Mechanic tool box	5 Pcs	1:5
	Hammer	Sludge/ ball peen	5 Pcs	1:5
	Hammer	Plastic type	5 Pcs	1:5
	Plier	Combination	5 Pcs	1:5
	Plier	Long nose	5 Pcs	1:5
2. Equipments				
	Bench	(12 x 2) m	5 Pcs	1:5
	Jack	Floor	5 Pcs	1:5
	Jack	For transmission	5 Pcs	1:5

LEARNING MODULE 04	
TVET-PROGRAMME TITLE:	Automotive Mechanics Level V
MODULE TITLE:	Performing Accident Analysis and Implement Restoring Options
MODULE CODE:	<u>EIS AUM2 M04 03212</u>
NOMINAL DURATION:	60 hours
MODULE DESCRIPTION: This module covers the knowledge, skill and attitude required to Perform accident analysis & Implement Restoring options practices and processes as part of the organization's overall management system.	
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <p>LO1. Identify and confirm the work requirement</p> <p>LO2. Prepare to perform analysis</p> <p>LO3. Apply complex analysis procedures</p>	
<p>MODULE CONTENTS:</p> <p>LO1. Identify and confirm the work requirement</p> <p> 1.1 Concepts and principles of accident analysis</p> <p> 1.1.1 Accident analysis theory</p> <p> 1.1.2 Analysis design and planning types</p> <p> 1.2 Type of accident and impact</p> <p> 1.3 Vehicle industry regulations</p> <p> 1.4 Identifying and confirming effects of impacts</p> <p> 1.5 Identifying and confirming expected damages on accidents</p> <p> 1.6 Considering and responding Possible safety impacts</p> <p>LO2. Prepare to perform analysis</p> <p> 2.1 Developing and adopting accident analysis criteria</p> <p> 2.2 Problem-solving skills to use available information</p> <p> 2.3 Identifying and selecting accident analysis methods</p> <p> 2.4 Documenting and reporting methods and processes</p> <p>LO3. Apply complex analysis procedures</p> <p> 3.1 Applying complex fault analysis techniques</p>	

3.1.1 Six-step troubleshooting plan

3.1.2 Discover-investigate-fix methodology

3.1.3 Diagnostic flow chart

3.1.4 Black box diagnosis

3.2 Analysing type of impacts

3.3 Analysing extent of damage

3.4 Analysing restoring cost

3.5 Proposing decision

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ 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) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow

		<ul style="list-style-type: none"> ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Time extension 	<ul style="list-style-type: none"> up ❖ Time extension
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ASSESSMENT CRITERIA:

LO1. Identify and confirm the work requirement

- Workplace instructions and reports are used to determine the nature and objective of accident analysis requirements
- Specifications and procedures for accident analysis are accessed and interpreted
- Workplace Health and Safety (WHS) requirements, including equipment and system isolation and personal protection needs, are observed and addressed throughout the work
- Effects of impacts or expected damages on accidents are identified and confirmed from indirect or direct evidence
- Possible safety impacts of the work are considered and responded to according to regulatory and workplace procedures

LO2. Prepare to perform analysis

- Criteria for accident analysis are developed and adopted to meet the objective of the work
- System performance achievements or discrepancies are identified from scrutiny of technical support information and available on-board diagnostic systems
- Accident analysis methods, including complexity of diagnostic process, sequence, tests and testing process are identified and selected from the range of available options
- Tools and materials required to support the analysis process are identified, selected and prepared for use

LO3. Apply complex analysis procedures

- Selected analysis procedures are followed according to specifications and workplace procedures
- Analysis is carried out according to workplace procedures and manufacturer and component supplier specifications
- Findings are verified, if necessary, by using reliable alternative or optional processes
- Conclusions are drawn from findings and documented according to workplace requirements
- Information and detail related to the evaluation of diagnosis is provided to the appropriate person or customer to confirm further action to be taken

Annex: Resource Requirements

EIS AUM5 04 1221		Performing Accident Analysis & Implement Restoring Options		
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	Learning Materials			
1.	TTLM	Prepared by ministry of labor and skills	5 Pcs	1:5
2	Reference and Text books			
2.1	Light and Heavy Vehicle Technology	Nunney, M. J., 4th ed., Rutledge, 2007	5 Pcs	1:5
2.2	Automotive Technology: Principles, Diagnosis & Repair, and Service	Halderman, D., 3 rd ed., Prentice Hall, 2008.	5 Pcs	1:5
2.3	Automotive Technology: A systems approach	Erjavec, J., 7 th ed., Delmar Cengage Learning, 2017	5 Pcs	1:5
2.4	Automotive Mechanics	Crouse, W.H. and Anglin D.L., 10 th ed., McGraw-Hill Companies, 1993.	5 Pcs	1:5
2.5	Automotive Repair and Maintenance	Abrahams, A., Pearson South Africa, 2008.	5 Pcs	1:5
2.5	Service Manuals	(TOYOTA, Nissan)	5 Pcs	1:5
4.	Journals/Publication/Magazines			
B.	Learning Facilities & Infrastructure			
1.	Class room	For lecture in (m ²)	1 Pcs	6:5
2.	Work shop	For practical activity (m ²)	1 Pcs	4:1
3.	Work bench	Length x Width x Height (2m x 1.2m x 0.78m)	5 Pcs	1:5
4.	White and/or black board	Length x Height (2.4m x 1.2m)	1 Pcs	1:25
5.	Arm chair	Length x Width x Height (1m x 0.55m x 0.74m)	25 Pcs	1:1
6.	Chair (for trainer)	Length x Width x Height (0.4m x 0.56m x 0.78m)	1 Pcs	1:25
7.	Table	Length x Width x Height (1.2m x 0.8m x 0.74m)	1 Pcs	1:25
8.	Computer	(Desktop/Laptop)	1 Pcs	1:25
9.	LCD Projector		1 Pcs	1:25
C.	Consumable Materials			
1.	Fillip-chart	A2 size	5 Pcs	1:5
2.	Paper	A4	5 Pack	1:5

D.	Tools and Equipment			
1.	<i>Hand tools</i>			
1.	Wrenches	Different size	5 Set	1:5
2.	Socket and ratchet	Different size	5 Set	1:5
3.	Torque wrench	Mid-size	1Pcs	1:25
4.	Pliers	Different size	5 Set	1:5
5.	Screw drivers	Different size	5 Set	1:5
6.	Hammers	Different size	1 Set	1:25
7.	Cutters	Different size	1 Set	1:25
8.	Chisels and punches	Different size	1 Set	1:25
9.	Gears and bearing pullers	Different size	1 Set	1:25
10.	Wrenches	Different size	5 Set	1:5
2	<i>Power tools</i>			
1.	Impact wrench	Air/ electric power operated	5Pcs	1:5
2.	Air drill	Electric power operated	5Pcs	1:5
3.	Blowgun	Electric power operated	5Pcs	1:5
4.	Ratchet	Air/ electric power operated	5Pcs	1:5
5.	Jacks and lifts	Hydraulic power operated	5Pcs	1:5
3	<i>Measuring tools</i>			
1.	Vernier caliper	0-100mm digital	5Pcs	1:5
2.	Vernier caliper	0-100mm analog	5Pcs	1:5
3.	Dial gauge	0.01/0.001	5Pcs	1:5
4.	Micro meter	0-150mm	5Pcs	1:5
5.	Try square	steel	5Pcs	1:5
6.	Feeler gauge	0.05-100mm	5Pcs	1:5
7.	Steel rule	1000mm	5Pcs	1:5
8.	Measuring tape	1m×0.5m	5Pcs	1:5
4	<i>Equipment</i>			
1.	Bench vises	Fixed on bench	1Pcs	1:25
2.	Presses	hydraulic	5Pcs	1:5
3.	Bench grinders	Electric power operated	1Pcs	1:25

LEARNING MODULE 05	
TVET-PROGRAMME TITLE:	Automotive Mechanics Level V
MODULE TITLE :	Managing Environmental Protection Process
MODULE CODE :	EIS AUM5 M05 0322
NOMINAL DURATION :	35 Hours
MODULE DESCRIPTION : This module covers the knowledge, skill and attitude required to manage environmental management practices and processes as part of the organization's overall management system.	
<p>LEARNING OUTCOMES</p> <p>At the end of the module the trainee will be able to:</p> <p>LO1. Prepare environmental management plan for the organization</p> <p>LO2. Organize implementation of environmental plan</p> <p>LO3. Monitor implementation</p> <p>LO4. Review and enhance environmental management plan</p>	
<p>MODULE CONTENTS:</p> <p>LO1. Prepare environmental management plan for the organization</p> <p>1.1. Analyzing environmental legislation impact on organizations</p> <p>1.2. Determining best practice and benchmarking</p> <p>1.3. Analyzing environmental managements requirements</p> <p>1.4. Preparing plan environmental management</p> <p>LO2. Organize implementation of environmental plan</p> <p>2.1 Informing staff implementing plan obligations</p> <p>2.2 Managing Environmental data gathering systems</p> <p>2.3 Evaluating new projects to determine impact on planning</p> <p>2.4 Monitoring plan progress local authorities</p> <p>2.5 Informing updates plan for staff and stakeholders</p> <p>2.6 Developing environmental management evaluating strategy plan</p> <p>LO3. Monitor implementation</p> <p>3.1 Implementing organizational plan feedback systems</p> <p>3.2 Auditing practices to ensuring correctness and accountability</p> <p>3.3 Implemented emergency strategies plan</p> <p>LO4. Review and enhance environmental management plan</p> <p>4.1 Reviewing plan need to take action improvements</p> <p>4.2 Improving performance innovations assisting staff</p>	

4.3 Redrafting Plans deficiencies monitoring

4.4 Submitting revised plans for endorsement

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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

		❖ Summarize main points		
Demonstration	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ 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) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member ❖ Inform the group 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			members to speak loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow

		<ul style="list-style-type: none"> ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Time extension 	<ul style="list-style-type: none"> up ❖ Time extension
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ASSESSMENT CRITERIA:**LO.1 Prepare environmental management plan for the organization**

- Current shifts in environmental legislation or regulation are analyzed in relation to their potential impact on the organization.
- Best practice and benchmarking methods are used to determine current environmental management performance.
- Project environmental obligations and management requirements are analyzed.
- Practical problems encountered on site are gathered and analyzed
- An environmental management plan is prepared on the basis of the available information.
- Senior management advice is sought, as required, concerning the implementation of the plan.

LO.2 Organize implementation of environmental plan

- Staff and contractors are informed of their obligations in implementing the environmental planning process and monitored for compliance.
- Environmental data gathering systems are evaluated, changes are made as necessary and the system is managed for maximum efficiency and accuracy.
- New projects are evaluated to determine their impact on existing environmental planning obligations.
- Local authorities and/or regulatory bodies are contacted concerning those areas of the plan where there is on-going monitoring or external overseeing.
- Information concerning updates to the environmental management plan is communicated to staff and stakeholders.
- An environmental management plan evaluation strategy is developed and managed to ensure that the organization

LO.3 Monitor implementation

- Organizational feedback systems are implemented and managed to assist the conformance and management of the plan.
- Regular feedback is obtained concerning the operations of the environmental management plan to assist the organization to meet its legal obligations.

- Where necessary, legally required auditing practices to ensure probity and accountability to legislative requirements are managed and maintained.
- Contractor contact is maintained and their conformance with environmental management requirements is monitored.
- Emergency and remediation response strategies are implemented as necessary to assist conformance with the environmental management plan.

LO.4 Review and enhance environmental management plan

- The environmental management plan is reviewed to identify areas which need improvements and action is taken.
- Measures are introduced to assist staff to suggest more efficient procedures and innovations to improve the performance of the environmental management plan.
- Plans are redrafted to include improvements or address deficiencies which are found during the monitoring.
- Revised plans are submitted for endorsement by senior management and procedures are changed accordingly.

Annex: Resource Requirements

EIS AUM5 M05 0322		Managing Environmental Protection Process		
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	Prepared by ministry of labor and skills	25 Pcs	1:1
2.	Reference Books			
	Environmental Management 1st Edition	Elsevier	1 Pcs	1:5
•	The Processes of Ecological Change	Clifford Geertz	1 Pcs	1:5
•	All We Can Save	Ayana Elizabeth Johnson and Katharine Wilkinson (eds.)	1 Pcs	1:5
•	Aqueous Wastes from Petroleum and Petrochemical Plants	Milton R. Beychok	1 Pcs	1:5
•	The Discovery of Global Warming	Spencer R. Weart	1 Pcs	1:5
4.	Journals/Publication/Magazines		1 Pcs	1:5
B. Learning Facilities & Infrastructure				
3.	Printer toner/ink	Compatible with the existing printer	5 pcs	1:25
4.	Photocopier ink/toner	Compatible with the existing printer	1Pcs	1:25
5.	CD/DVD	RW	5 pcs	1:5
6.	Paper	A4 80gms	5 reams	1:5
7.	Dose	Blue, green, and yellow	50 pcs	2:1
8.	Bond paper	A4 size; 20 gsm	5 reams	1:5
9.	Flip chart	Sinrline	5 pads	1:5
10.	Work shop	Standard	25 Pcs	1:1
C. Consumable Materials				
11.	Printer toner/ink	Compatible with the existing printer	5 pcs	1:25
12.	Photocopier ink/toner	Compatible with the	1Pcs	1:25

		existing printer		
13.	CD/DVD, flash disk	RW	5 pcs	1:5
14.	Paper	A4 80gms	5 reams	1:5
15.	Dose	Blue, green, yellow and red	50 pcs	2:1
16.	Bond paper	A4 size; 20 gsm	5 reams	1:5
17.	Flip chart	Back roll type	5 pads	1:5

LEARNING MODULE 06	
TVET-PROGRAMME TITLE:	Automotive Mechanics Level V
MODULE TITLE:	Managing People Performance and Relationships
MODULE CODE:	<u>EIS AUM5 M06 0322</u>
NOMINAL DURATION:	40 hours
MODULE DESCRIPTION: This module covers the knowledge, skill and attitude required to manage the performance of the staff who report to them directly. It includes people performance and relationship aspects of implementing and operating competitive systems and practices, development of key result areas and key performance indicators and standards, coupled with regular and timely coaching and feedback, and provide the basis for performance management.	
LEARNING OUTCOMES At the end of the module the trainee will be able to: LO1. Allocate and Confirm work performance LO2. Develop an open environment and Assess performance LO3. Identify significant issues and provide feedback LO4. Proactively manage and resolve issues	
MODULE CONTENTS: LO1. Allocate and Confirm work performance 1.1 principles of performance management 1.2 Allocating of work relevant group and individuals 1.3 Confirming Performance standards, Code of Conduct 1.4 Developing Performance indicators 1.5 Identifying key performance indicators (KPIs). 1.6 Undertaking Risk analyses LO2. Develop an open environment and Assess performance 2.1 Designing review processes performance management 2.2 Training Participants in the performance management 2.3 Developing and maintaining communication 2.4 Implementing Performance management 2.5 Monitoring and evaluating performance LO3. Identify significant issues and provide feedback 3.1 Identifying current and potential issues in cooperation 3.2 Assisting team members and stakeholders	

3.3 Identify and define boundary and non-negotiable issues

3.4 Negotiate with team and stakeholders

3.5 Giving informal feedback

3.6 Identifying Poor performance

3.7 providing On-the-job coaching

LO.4 Proactively manage and resolve issues

4.1 Developing Performance improvement and development plans

4.2 .Reinforcing Excellence in performance

4.3 .Coaching and re-training performance

4.4 .Evaluating and revising feedback systems

4.5 .Termination of job/work

4.6 .Evaluating and improving selection , induction and training systems

4.7 .Taking action to resolve any arising issues

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ 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) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/ practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader ❖ (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow

		<ul style="list-style-type: none"> ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Time extension 	<ul style="list-style-type: none"> up ❖ Time extension
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ASSESSMENT CRITERIA:**LO.1 Allocate and Confirm work performance**

- number and status of competitive systems and practices techniques being used within the organizations are identified
- Relevant groups and individuals are consulted on work to be allocated and resources to be deployed
- key performance indicators (KPIs) for each technique is Identified
- Performance standards, Code of Conduct and work outputs and processes are confirmed prior to commencement
- Performance indicators are developed for key result areas and are agreed prior to commencement of work
- Risk analyses are undertaken in accordance with the organizational risk management plan and legal requirements

LO.2. Develop an open environment and Assess performance

- Performance management and review processes are designed to be consistent with organizational objectives and policies
- Develop and maintain regular and frequent communication with all key stakeholders
- Participants in the performance management and review process are trained
- Performance management processes are implemented in accordance with planning and timelines
- Performance is monitored and evaluated on a continuous basis.

LO.3 Identify significant issues and provide feedback

- Identify current and potential issues in liaison with team members and stakeholders
- Assist team members and stakeholders to formulate issues
- Identify and define boundary and non-negotiable issues for all team members and stakeholders
- Negotiate with team members and stakeholders over actual and potential issues
- Informal feedback is given in a regular, timely manner
- Poor performance is identified promptly and brought to the attention of the

appropriate person

- On-the-job coaching is provided when necessary, both to improve performance and confirm excellence in performance
- Documentation of performance is in accordance with the performance management system
- Formal structured feedback sessions occur as necessary and in accordance with organizational policy

LO4. Proactively manage and resolve issues

- Performance improvement and development plans are developed in accordance with organizational policies
- Check that implementation is proceeding to plan
- Assistance is sought from human resource specialists where appropriate
- Excellence in performance is reinforced through recognition and continuous feedback
- Individuals not meeting expectations are provided with the necessary coaching and re-training and monitored closely
- Support services are provided to meet individual needs and circumstances
- Individuals who continue to perform below expectations are counseled and, where necessary, placed within the disciplinary process
- Terminations occur where serious misconduct or on-going under-performance occurs
- Terminations are in accordance with organizational and legal requirements
- Performance feedback systems are evaluated regularly and revised as necessary
- Selection, induction and training systems are evaluated regularly and improved
- Take action to resolve any arising issues

Annex: Resource Requirements

EIS AUM5 M06 0322		Managing People Performance and Relationships		
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	Learning Materials			
1.	TTLM	Prepared by ministry of labor and skills	25 Pcs	1:1
2.	Reference Books			
1	Performance management	R.S khurmi J.K Gupta	5 Pcs	1:5
2	Performance management 3 rd Edition	H.Aguinis	5 Pcs	1:5
3	Performance management	Dr .Herman Aguinis	5 Pcs	1:5
3.	Journals/Publication/Magazines			
B.	Learning Facilities & Infrastructure			
1.	Class room	31.5 m ²	1 Pcs	1:25
2.	Library	School library	1pcs	1:25
3.	Whiteboard /Blackboard	240 x 120 cm	1 Pcs	1:25
4.	Arm Chair	55 X 100 x 70	25 Pcs	1:1
5.	Workshop	100 m ²	1 Pcs	1:25
6.	LCD/overhead projector	Standard	1pcs	1:25
C.	Consumable Materials			
3.	Kerosene	Fuel	10 liter	
3.	Cotton clothe	1meter	5 Pcs	1:5
4.	Sand paper	#100	2pack	
D.	Tools and Equipments			

LEARNING MODULE 07	
TVET-PROGRAMME TITLE:	Automotive Mechanics Level V
MODULE TITLE:	Developing Specifications and Document
MODULE CODE:	<u>EIS AUM5 M07 0322</u>
NOMINAL DURATION:	40 hours
MODULE DESCRIPTION: This Module covers the knowledge, skills and attitude required to read and interpret exploded and sectioned views of automotive component parts. It requires interpretations of standard machine drawings by using symbols, dimensional tolerances and conventional representation of materials, machine elements, and sizes of drawing sheets	
LEARNING OUTCOMES	
At the end of the module the trainee will be able to:	
LO1. Identify Requirements	
LO2. Prepare and Develop Specifications	
LO3. Apply Procedure	
LO4. Document Specifications and Procedures	
MODULE CONTENTS:	
LO1. Identify requirements	
1.1 Identifying and assembling Information required	
1.2 Establishing Specifications and procedures formats	
1.3 Requirement of information entry, storage, output and quality of document production	
1.4 Purpose of Specifications and procedures	
1.5 Design requirements	
1.4.1. Structural integrity	
1.4.2. Environmental impact	
LO2. Prepare specifications	
2.1 Technical information	
2.1.1. Information associated with design	
2.1.2. Production and operation	
2.1.3. Use and/or maintenance of an equipment and machine	

2.1.4. Processor system

2.1 .Using Authoritative sources and references

2.2 .Writing format clear and briefly

LO3. Apply procedure

3.1 Developing Technical activities and tasks requiring procedures

3.2 Developing and Sequencing tasks activity

3.3 Documenting Procedures

LO4. Document specifications and procedures

4.1 Documenting developed material

4.2 Following information management requirements

4.3 Documenting ready for use

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ 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) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers

			❖ Inform the group members to speak loudly	
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training ❖ Introduce new and relevant vocabularies 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/ practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:

LO.1. Identify requirements

- Information required for technical specifications and procedures is identified and assembled
- Specifications and procedures requirements and formats are established and confirmed, where necessary
- Requirements for information entry, storage, output and quality of document production are identified in accordance with enterprise procedures
- Specifications and procedures document design is appropriate for efficient entry of information and satisfies appearance and presentation requirements for the purpose of the document
- Range of functions incorporated in the document design reflects the nominated requirements

LO.2 .Prepare and develop specifications

- Technical information for use in the specification is collected, tested and validated or confirmed before use
- Authoritative sources and references are identified and used in the preparation and presentation of the specification
- Specifications are written in a format, to ensure requirements can be met
- Specifications are Develop in a manner that is clear and understood in the workplace
- Specification documentation satisfies enterprise and industry standards
- Specifications are developed that reflect document design requirements and are written in a manner appropriate to workplace

LO.3.Apply procedure

- Technical activities and tasks requiring procedures to be developed are analyzed, sequenced and logically grouped
- Tasks are sequenced and logically grouped
- Procedures are documented to enterprise and industry standards

LO.4. Document specifications and procedures

- Developed material is documented according to workplace procedures and document design requirements

- Information management requirements, including document storage, are followed according to workplace procedures and document requirements
- Document is presented ready for use as required

Annex: Resource Requirements

EIS AUM5 M07 0322		Developing Specifications and Document		
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A.	<i>Learning Materials</i>			
1.	TTLM	Prepared by ministry of labor and skills	25 pcs	1:1
2.	Reference Books			
1	System analyst and development	Charles S. Wasson	5 pcs	1:1
2	A handbook to writing educational Specifications 2005 Edition	Department of education State of alaka	5 pcs	1:1
3	Developing training material guide	Dr Mo Hamza	5 pcs	1:1
3.	Journals/Publication/Magazines			
B.	<i>Learning Facilities & Infrastructure</i>			
1.	Class room	31.5 m ²	1 pcs	1:25
2.	Whiteboard /Blackboard	240 x 120 cm	1 pcs	1:25
3.	Arm Chair	55 X 100 x 70	25 pcs	1:1
4.	Workshop	100 m ²	1 pcs	1:25
C.	<i>Consumable Materials</i>			
1.	Masking tape	Standard	5 pcs	1:5
D.	<i>Tools and Equipments</i>			

LEARNING MODULE 08	
TVET-PROGRAMME TITLE:	Automotive Mechanics level V
MODULE TITLE:	Monitoring Costing System of Project
MODULE CODE:	<u>EIS AUM5 M08 0322</u>
NOMINAL DURATION:	50 hours
MODULE DESCRIPTION: This module covers the knowledge, skills and attitudes required to monitor project costing systems. This includes determine, manage, prepare maintenance of cost control, the production of expenditure and schedules. Project cost monitoring system is the role of the supervisors and managers who establish and oversee projects to the best financial advantage of the enterprise/industry.	
LEARNING OUTCOMES At the end of the module the trainee will be able to: LO1. Determine and supervise resources required for the project LO2. Manage the preparation of schedule of project expenditure LO3. Prepare curves showing projected cash flow and payments LO4. Maintain continuous checks on expenditure and evaluate outcomes LO5. Prepare final cost report	
MODULE CONTENTS: LO1. Determine and supervise resources required for the project 1.1. Determining resource 1.2. Assessing risk 1.3. Identification of project costs 1.3.1. Human resource costs 1.3.2. Overhead costs 1.3.3. Plant and equipment purchase/lease and operating costs 1.3.4. Materials and supplies 1.3.5. Site services such as temporary power, lighting and water 1.3.6. Specialist services 1.3.7. Relevant codes, standards and legislation LO2. Manage the preparation of schedule of project expenditure 2.1. Schedules of project expenditure 2.1.1. Labor costs against estimated costs 2.1.2. Materials purchases	

2.1.3. Consumables such as fuel and lubricants, electric power and water

2.1.4. Supplies and materials

2.2. Financial phases of the project

LO3. Prepare curves showing projected cash flow and payments

3.1. Calculating interim payment claims and rise and fall

3.2. Projecting 'S' curve cash flow and resource control.

3.3. Calculating pessimistic overdraft

3.4. Project cash flow and payments

3.4.1. Progress payments in for work completed

3.4.2. Progress payments out for work undertaken

3.4.3. Progress payments for supplies and materials

3.4.4. Penalties

3.4.5. Wages and salaries

LO4. Maintain continuous checks on expenditure and evaluate outcomes

4.1. Monitoring cash flow

4.2. Comparing budget cost and actual costs

4.3. Identifying and analyzing Reasons for any cost variations

4.4. Taking and recording remedial action is

LO5. Prepare final cost report

5.1 Calculating and recoding total project costs

5.2 Final cost report

5.3 Documenting summary of costs and submit for approval

Learning Methods:				
For none impaired trainees	Reasonable Adjustment for Trainees with Disability (TWD)			
	Low Vision	Deaf	Hard of hearing	Physical impairment
Lecture-discussion	<ul style="list-style-type: none"> ❖ Provide large print text ❖ Prepare the lecture in Audio/video ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Conduct close follow up ❖ Use verbal description ❖ Provide special attention in the process of guidance ❖ facilitate the support of peer trainees ❖ Prepare & use simulation 	<ul style="list-style-type: none"> ❖ 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) 	<ul style="list-style-type: none"> ❖ Illustrate in clear & short method ❖ Use Video recorded material ❖ Ensure the attention of the trainees ❖ Provide tutorial support (if necessary) 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Use sign language interpreters ❖ Facilitate the integration of trainees with group members ❖ Conduct close follow up ❖ Introduce the trainees with other group member 	<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Introduce the trainees with their peers
Exercise	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special attention in the process/practical training 	<ul style="list-style-type: none"> ❖ Conduct close follow up and guidance ❖ Provide tutorial support if necessary ❖ provide special 	<ul style="list-style-type: none"> ❖ Assign peer trainees ❖ Use additional nominal hours if necessary

		❖ Introduce new and relevant vocabularies	attention in the process/ practical training	
Individual assignment	<ul style="list-style-type: none"> ❖ prepare the assignment questions in large text ❖ Encourage the trainees to prepare and submit the assignment in large texts ❖ Make available recorded assignment questions ❖ Facilitate the trainees to prepare and submit the assignment in soft or hard copy 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	<ul style="list-style-type: none"> ❖ Provide briefing /orientation on the assignment ❖ Provide visual recorded material 	

ASSESSMENT METHODS:				
Interview		<ul style="list-style-type: none"> ❖ 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 	<ul style="list-style-type: none"> ❖ Speak loudly ❖ Using sign language interpreter if necessary 	<ul style="list-style-type: none"> ❖ Use written response as an option for the trainees having speech challenges
Written test	<ul style="list-style-type: none"> ❖ Prepare the exam in large texts ❖ Use interview as an option if necessary ❖ Prepare the exam in audio format ❖ Assign human reader (if necessary) ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, True or False, matching and short answers ❖ Avoid essay writing ❖ Time extension 	<ul style="list-style-type: none"> ❖ Prepare the exam using short sentences, multiple choices, true or false, matching and short answers if necessary. 	<ul style="list-style-type: none"> ❖ 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	<ul style="list-style-type: none"> ❖ Brief the instruction or provide them in large text ❖ Time extension 	<ul style="list-style-type: none"> ❖ Use sign language interpreter ❖ Brief on the instruction of the exam ❖ Provide activity-based/practical assessment method ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Brief on the instruction of the exam ❖ Use loud voice ❖ Time extension 	<ul style="list-style-type: none"> ❖ Provide activity based assessment ❖ Conduct close follow up ❖ Time extension

ASSESSMENT CRITERIA:**LO.1 Determine and supervise resources required for the project**

- Determine resources required, factors affecting resource costs and interpret project works objectives.
- Staff members are supervised in their identification of project costs and accurate estimates made from project schedules.
- Cost centers are correctly identified and incorporated into a planned project cost network.
- Risk assessment is undertaken and estimated cost is compared with estimated risk.
- All planning ensures there is compliance with relevant codes of practice, standards and legislative requirements.

LO.2 Manage the preparation of schedule of project expenditure

- Draft schedules of project expenditure are prepared with critical points identified.
- Expenditure schedules are prepared using organizational processes and hardcopies produced.
- Critical financial phases of the project are identified and cash flows are matched to expenditure.
- Make adjustments where required to reconcile resource costs with project schedules

LO.3 Prepare curves showing projected cash flow and payments

- Interim payment claims and rise and fall calculations are prepared for the contractor and subcontractors.
- Projected 'S' curve is prepared to show cash flow and resource control.
- Cash flows using 'time risk' and 'cost risk' are prepared and compared.
- Cash flows using 'early start' and 'late finish' for pessimistic or optimistic outcomes are compared.
- Pessimistic overdraft requirements are calculated

LO.4 Maintain continuous checks on expenditure and evaluate outcomes

- Cash flow and creditor payments are monitored daily.
- Budget cost on the network is compared to actual costs in the tender calculations.
- Rise and fall clause calculations are undertaken and variations are advised to the financial controller.
- Reasons for any cost variations are analyzed and identified.
- Remedial action is taken and recorded as necessary to retain contract financial

compliance.

LO.5 Prepare final cost report

- Collate Actual costs and compared with estimates at the completion of the job and a report is compiled detailing future actions.
- Calculate and record total project costs
- Organizational rates are adjusted as required, based on the final cost report and current movements in prices and rates.
- Document summary of costs and submit financial summary for approval

Annex: Resource Requirements

<u>EIS AUM5 M08 0322</u>		Monitoring Costing System of Project		
Item No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A. Learning Materials				
1.	TTLM	Prepared by ministry of labor and skills	5 Pcs	1:5
2. Reference Books				
2.1	Cost Management: Measuring, Monitoring & Motivating Performance	K.P. Gubta Global India Publications, 2009	5 Pcs	1:5
2.2	Project Scheduling and Cost Control: Planning, Monitoring and Controlling the Baseline	<u>Leslie G. Eldenburg</u> (Author), <u>Susan K. Wolcott</u> (Author) 06 /02 /2007	5 Pcs	1:5
2.3	Planning, Scheduling, Monitoring and Control: The Practical Project Management of Time, Cost and Risk	by <u>James C. Taylor</u> Published November 1st 2007	5 Pcs	1:5
4.	Journals/Publication/Magazines			
B. Learning Facilities & Infrastructure				
1.				
2.				
3.				
C. Consumable Materials				
1	Paper	A4	5 Pack	1:5
2	Paper	A3	5 Pack	1:5
3	Marker	Permanent	5 Pack	1:5
4	Pen	Blue	25 pcs	1:1
5	Fixer	0.5	25 pcs	1:1
D. Tools and Equipments				
1. Tools				
	Stapler	Medium	5 Pcs	1:5
	Stapler wire	Medium	5 Pcs	1:5
	Calculator	Scientific	5 Pcs	1:5
	Ruler	80 cm	5 Pcs	1:5

Acknowledgement

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