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INDUSTRIAL ATTACHMENT

MENTORING TOOL

ELECTRICAL INSTALLATION

LEVEL 4

TRAINEE'S NAME:

ADMISSION NUMBER:

COURSE:

LEVEL:

INSITUTION NAME:

ADRESS:

ATTACHMENT PERIOD FROM:TO:



TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)

MENTORING TOOL

FOR

ELECTRICAL INSTALLATION

LEVEL 4

FOREWORD

This mentoring tool has been developed by TVET Curriculum Development, Assessment and Certification Council (TVET CDACC) in partnership with trainers and industry experts in Electrical Sector.

Mentoring relationships have demonstrated to be an excellent way of enhancing professional growth. Both the mentor and the mentee give and grow in the mentoring process. The mentee can learn valuable knowledge from the mentor's expertise and past mistakes and competencies can be strengthened in specific areas. Mentees will have the opportunity to establish valuable connections with higher level employees. The success of mentoring will depend on clearly defined roles and expectations in addition to the mentee's awareness of the benefits of participating in the mentoring program.

This mentoring tool is an assessment tool used to assess whether a mentee meets the National Occupational Standards for Electrical Installation Level 4. Whilst there is no agreement or finite evidence as to how many times this supervised exercise should occur, both the mentor and the mentee should feel confident that the mentee has the necessary knowledge, skills and attitudes (worker behaviors) to work as an Electrical Artisan.

The Mentoring will facilitate the experienced mentors in the world of work to share knowledge and experiences with mentees working under them towards a mutually beneficial professional development relationship. Mentors will be helpful in building competencies of mentees in areas of practice.

PROF. KISILU KITAINGE
CEO/COUNCIL SECRETARY

TRAINEE (MENTEE) DETAILS

Name of Trainee (Mentee)	
Registration Code of Trainee (Mentee)	
Trainee's/mentee's Institution Details	Name:
	Physical & postal address:
	Phone and email address:
Date of Commencement of Mentoring Period (dd/mm/yyyy)	
Date of Completion of Mentoring Period (dd/mm/yyyy)	
Organization	Name:
	Physical & postal address:
	Phone and email address:

INFORMATION FOR USERS

Role of a Mentor

A **mentor** is someone who provides support and advice that empowers the mentee to achieve skills, knowledge and attitudes (worker behaviors).

This may be a supervisor, manager or a worker who is an expert in a particular field.

The role of the mentor includes:

- Assisting mentee understand the organisation's requirements
- Assigning mentee tasks
- Observing mentee performance and record areas where the mentee needs improvement
- Assisting the mentee to come up with action plan for areas where he/she needs improvement

Role of Mentee

A **mentee** is a trainee who is on work placement (attachment) or is on-job training in an organization.

The role of the mentee includes:

- Completing the assessment tasks assigned by the mentor and filling out the self-assessment section
- Keeping the company's information confidential
- Being aware that he/she may be working with people from different backgrounds and cultures, so there is a need to respect those differences
- Asking for feedback and giving feedback when required.
- Upholding the organization's standards of work ethics.

Role of Industrial Liaison Officer

The Industrial Liaison Officer (ILO) is the officer in the training institution assigned the responsibility of coordinating activities of industry training based on TVET CDACC and institutions guidelines for industry training. The role of ILO include;

- Sensitizing trainees on their responsibilities during industry training
- Sensitizing mentors on their roles during industry training for trainees
- Coordinate industry training
- Receiving mentoring tools from trainees
- Ensuring mentorship tools are included in each candidate portfolio of evidence
- Upload candidate final mark to TVET CDACC portal

How to use the mentoring tool

- Where a skill, knowledge or attitude is not applicable in a particular workplace, the mentee should indicate not applicable (NA)
- The mentor should ask the mentee oral questions to gauge the knowledge of the mentee
- The mentee should fill the self-assessment section upon self-evaluation
- The mentor should fill the mentor review record upon observing and evaluating the mentee
- Action plan should be filled by the mentee after agreeing with the mentor for any item assessed as needs to improve

Mentoring Period

The attachment period should be at least three months. Mentee should spend at least two thirds of the attachment in performing electrical installation, performing testing of electrical installation and performing electrical system breakdown maintenance. Time spent in each section/department should be documented using form in Appendix A.

Number of Assessments

Three assessments are to be conducted using the mentoring tool: one within the first month of the attachment where the mentor assesses the mentee to assess their initial level of competence; another assessment will be conducted within the second month of the attachment period to gauge the progress of the mentee and the third one will be conducted within the third month of the attachment. However, the assessment outcome is based on the third /final assessment.

Submission of Mentoring Reports

The mentor is required to submit each of the three mentoring reports (in hard or soft copy) to the Industrial Liaison Officer of the respective institution. The Industrial Liaison Officer is required to submit to TVET CDACC offices the three mentor's summary reports (Appendix B). The filled mentoring tools for each trainee are to be kept in the institution and made available to TVET CDACC on request.

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1. PERFORM ELECTRICAL INSTALLATION

Mentor and mentee: Please fill information for each of the two sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), Observation check-list, products, photos and videos of products and services etc.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Manufacturer's warranty requirements relating to electrical installation systems and related components					
2.	Legal requirements relating to electrical installations					
3.	Legislation and workplace procedures relevant to health and safety, environmental including waste disposal and PPEs					
4.	Workshop procedures for work place communication, time management, team building and team work, notifying danger					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), Observation checklist, products, photos and videos of products and services etc.
	and hazard zones to workers and materials management					
5.	Importance of keeping records and documentation					
	SKILLS The mentee:					
6.	Applies and adheres to safety procedures as per standard operating procedures					
7.	Produces sketches, interprets electrical drawings. e.g. schematic drawings, assembly drawings and prepares working drawings					
8.	Applies appropriate technical standards (IEE standard, British Standard, KEBS standard)					
9.	Prepares list of tools, equipment and materials as per task requirements.					
10.	Uses proper tools and equipment during installation					
11.	Handles and stores tools and equipment as per manufactures instructions.					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), Observation checklist, products, photos and videos of products and services etc.
12.	Demonstrates safe selection, placing and wiring of cables/ wires, fixtures and fittings					
13.	Observes IEE regulations during installation.					
14.	Installs functional single phase electrical system(s)					
15.	Installs functional 3-phase electrical system (s) under supervision					

Note:

To be declared competent, the mentee must get:

1. 8 of the 15 (50%) items of evaluation correct and
2. Items 6, 12, 13 and 14 correct

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent ☐ Not Yet Competent ☐ <i>(If not yet competent, please specify in the remarks column which areas the mentee need to improve on)</i>	

2. PERFORM TESTING OF ELECTRICAL INSTALLATION

Mentor and mentee: Please fill information for each of the two sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), Observation check-list, products, photos and videos of products and services etc.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Manufacturer's warranty requirements relating to inspection and testing activities for the electrical installations and related components.					
2.	Operation of testing equipment					
3.	Procedure for carrying out various tests					
	SKILLS The mentee:					
4.	Applies the procedures of testing according to the established standards					
5.	Identifies the types of tests to be carried out					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), Observation checklist, products, photos and videos of products and services etc.
6.	Carries out tests of the electrical installation in line with IEE regulations					
7.	Observes IEE regulations during testing					
8.	Identifies test equipment according to the type of tests to be carried out					
9.	Obtains and records test values					
10.	Interprets the recorded test results					
11.	Carries out physical inspection of electrical installations to be tested					
12.	Use test equipment as per manufacturer's instructions					

Note:

To be declared competent, the mentee must get:

1. 6 of the 12 (50%) items of evaluation correct and
2. Items 6, 7, 9, 10 and 12 correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent ☐ Not Yet Competent ☐ <i>(If not yet competent, please specify in the remarks column which areas the mentee need to improve on)</i>	

3. PERFORM ELECTRICAL SYSTEM BREAKDOWN MAINTENANCE

Mentor and mentee: Please fill information for each of the two sections in the respective columns. Initials should be used as given in the header below.

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), Observation check-list, products, photos and videos of products and services etc.
	KNOWLEDGE The mentee demonstrates knowledge of:		Self-assessment	Mentor review		
1.	Legislation and workplace procedures in relation to health and safety, environment and appropriate PPEs					
2.	Use of service and maintenance manuals					
3.	Workplace procedures in relation to fault identification and diagnosis, appropriate use of tools and equipment, repairing, modification or replacement of defective components, recording electrical maintenance activities and reporting technical challenges.					
4.	Manufacturer's warranty requirements relating to maintenance activities for					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), Observation checklist, products, photos and videos of products and services etc.
	electrical installation systems and related components.					
5.	Legal and statutory requirements relating to electrical maintenance activities.					
6.	Importance of documenting maintenance information.					
7.	Finding, interpreting and using sources of technical information for maintenance activities					
8.	Purpose of and how to use identification codes.					
	SKILLS The mentee:					
9.	Identifies electrical system failure					
10.	Troubleshoots the electrical system to establish cause of failure					
11.	Documents maintenance report					
12.	Repairs and maintains electrical system(s)					

S/N.	Items for evaluation (knowledge and skills)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), Observation checklist, products, photos and videos of products and services etc.
13.	Carries out tests as per the electrical system requirements					
14.	Demonstrates problem solving and analytical skills					
15.	Demonstrates report writing skills					

Note:

To be declared competent, the mentee must get:

1. 8 of the 15 (50%) items of evaluation correct and
2. Items 10, 12, 13 and 14 correct.

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent ☐ Not Yet Competent ☐ <i>(If not yet competent, please specify in the remarks column which areas the mentee need to improve on)</i>	

4. WORKER BEHAVIOUR

Mentor and mentee: Please fill information for these sections in the respective columns. Initials should be used as given in the header below. The mentee is supposed to demonstrate the following worker behaviour.

S/N.	Items for evaluation (attitudes)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes etc.
	The mentee is:		Self-assessment	Mentor review		
1.	An effective communicator					
2.	A team player/Impartial					
3.	Tolerant					
4.	Trustworthy					
5.	Respectful					
6.	Emotionally intelligent					
7.	A Problem solver					
8.	Open minded/open to correction and positive criticism					
9.	Self-aware					
10.	Creative and innovative					
11.	Diligent/ thorough					

S/N.	Items for evaluation (attitudes)	Not applicable (NA) To current area of practice	Self-assessment record: Need to improve (NI) Or met (date)	Mentor review record: Need to improve (NI) Or met (initials & date)	Record action plan for any item assessed as needs to improve (as agreed with mentor)	Evidence e.g., marked scripts (written and/oral), observation checklist, products, photos and videos of products and processes etc.
12.	Environmentally conscious					
13.	Time conscious					
14.	Presentable					
15.	Resilient and self-driven					
16.	Discipline and observing organisation code of conduct					
17.	Growth oriented					

NOTE: Note: (instructions for evaluation)

To be declared competent, the mentee must get

1. 75% items of evaluation correct

Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent ☐ Not Yet Competent ☐ <i>(If not yet competent, please specify in the remarks column which areas the mentee need to improve on)</i>	

APPENDIX A: SUMMARY OF TOTAL PERIOD OF MENTORSHIP (TO BE FILLED BY MENTEE)

S/N	Section/Department/ Worksite/workstation/workshop/ workplace	Period (Weeks/days)	Mentor's Name
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

APPENDIX B: MENTOR SUMMARY REPORT (TO BE FILLED BY OVERALL SUPERVISOR)

NAME OF TRAINEE: REGISTRATION NUMBER OF TRAINEE: NAME OF TRAINEE'S INSTITUTION: NAME OF MENTOR: DESIGNATION: MENTORING ORGANIZATION: DATE : SIGNATURE AND STAMP:	
Evaluation	Remarks
Please tick as appropriate The mentee was found to be: Competent ☐ Not Yet Competent ☐ <i>(The candidate is competent if s/he gets 50% of the items correct)</i> <i>(If not yet competent, please specify in the remarks column which areas the mentee need to improve on)</i>	

<i>Feedback from mentor (Supervisor):</i>	
<i>Mentor's signature:</i>	<i>Date</i>
<i>Feedback from mentee (trainee):</i>	
<i>Mentee's signature:</i>	<i>Date</i>

APPENDIX C: ADDITIONAL SKILLS ACQUIRED DURING THE MENTORING PERIOD (TO BE FILLED BY MENTEE)

S/N	Additional skill acquired	Description of the task	What new things have you learned from this task
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

APPENDIX D: INDUSTRIAL LIAISON OFFICER FORM (TO BE FILLED BY ILO)

NAME OF INSTITUTION:

NAME OF ILO OFFICER:

DATE :

REMARKS

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SIGNATURE AND STAMP: