



REPUBLIC OF KENYA

COMPETENCY-BASED CURRICULUM

FOR

ELECTRICAL INSTALLATION

KNQF LEVEL 4

ISCED PROGRAMME CODE:07130454B



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

WORKSHOP TECHNOLOGY

UNIT CODE: ENG/CU/EI/CC/02/4/B

Relationship to Occupational Standards

This unit addresses the unit of competency: Perform workshop processes

Duration of Unit: 20 hours

Unit Description

This unit covers the competencies required to perform workshop processes. Competencies include applying workshop safety, using workshop tools, equipment and materials, preparation of workshop for electrical installation, storage of tools, equipment and materials, troubleshoot and repair/replace workshop tools and equipment

Summary of Learning Outcomes

1. Apply workshop safety precautions
2. Use workshop tools, Instruments and equipment
3. Prepare workshop tools and instruments for an Electrical installation
4. Store Electrical tools and materials
5. Troubleshoot and repair workshop tools and equipment

Learning Outcomes, Content and Suggested Assessment Methods:

Learning Outcome	Content	Suggested Assessment Methods
1. Apply workshop safety precautions	<ul style="list-style-type: none">• Meaning of PPE<ul style="list-style-type: none">• Standard operating procedure in PPE• Workshop rules• Electrical hazards e.g.<ul style="list-style-type: none">• Electric shock.• Fire<ul style="list-style-type: none">• Classes of fire• Classes of fire• Various methods of fire extinguishing• First Aid	<ul style="list-style-type: none">• Oral questioning• Written tests• Practical test
2. Use of workshop tools,	<ul style="list-style-type: none">• Meaning of workshop tools, instruments and equipment	<ul style="list-style-type: none">• Oral questioning• Practical tests

Instruments and equipment	<ul style="list-style-type: none"> • Classification of workshop tools and equipment • Uses of workshop tools, Instruments and equipment • Care and Maintenance of workshop tools and Instruments 	<ul style="list-style-type: none"> • Written tests
3. Prepare workshop tools and instruments for an Electrical installation	<ul style="list-style-type: none"> • Tools and instruments for an Electrical practical <ul style="list-style-type: none"> • Preparation of a list of tools and instruments for electrical practical. • Issuing and confirmation of tools and instruments before and after practical • Testing and configuring equipment 	<ul style="list-style-type: none"> • Observation • Oral questioning • Practical tests • Written tests
4. Store tools and materials after installation	<ul style="list-style-type: none"> • Classification of workshop tools and instruments. • Storage of workshop tools and equipment • Waste disposal 	<ul style="list-style-type: none"> • Observation • Oral questioning • Practical tests • Written tests
5. Troubleshoot and repair/replace workshop tools and equipment	<ul style="list-style-type: none"> • Meaning of troubleshooting • Common faults in Electrical equipment • Fault diagnosis procedure • Repair/Replace of components in Electrical equipment • Calibration and service of equipment 	<ul style="list-style-type: none"> • Observation • Oral questioning • Practical tests • Written tests

Suggested Methods of Instruction

- Demonstration by trainer
- Practice by the trainee

- Field trips
- On-job-training
- Discussions

Recommended Resources

- Set of screw drivers
- Pliers
- Phase testers
- Stationery
- Cables
- Lubricants
- Service parts
- Multimeter
- PPE –hand gloves, dust coat, dust masks
- Multimeter
- Clamp meter
- Earth electrode resistance meter
- Phase sequence meter
- IEE regulations
- Organizational procedures manual