

TECHNICAL DRAWINGS II

UNIT CODE: 0732441 16A

TVET CDACC UNIT CODE: ENG/CU/MDE/CC/12/5/MA

UNIT DURATION: 70 HOURS

Relationship to Occupational Standards

This unit addresses the unit of competency: Prepare Technical Drawings II

UNIT DESCRIPTION

This unit covers competences required to prepare technical drawings. It involves Producing pictorial, orthographic drawings of components and electrical drawings.

Summary of Learning Outcomes

	Learning Outcome	Duration in hours.
1.	To produce pictorial drawings of components	15
2.	To produce orthographic drawings of components	15
3.	To produce electrical drawings	40
	TOTAL	70

Learning Outcomes, Content and Suggested Assessment Methods:

Learning Outcome	Content	Suggested Assessment Methods
1. Produce pictorial drawings of components	2.1 Meaning of pictorial drawings 2.2 Pictorial Drawings of Components 2.2.1 Isometric 2.2.2 Oblique 2.2.3 Cabinet Oblique 2.3 Meaning of symbols and abbreviations	<ul style="list-style-type: none">• Practical Assessment• Project• Third Party Report• Portfolio of Evidence• Written Assessment• Oral Questioning

Learning Outcome	Content	Suggested Assessment Methods
2. Produce orthographic drawings of components	3.1 Drawing and interpretation of orthographic elevations 3.2 Dimensioning of orthographic elevations 3.3 Drawing objects in isometric view 3.4 Drawing objects in oblique view 3.5 Free hand sketching of different types of geometric forms, tools and equipment	<ul style="list-style-type: none"> • Practical Assessment • Project • Third Party Report • Portfolio of Evidence • Written Assessment • Oral Questioning
3. Produce electrical drawings	3.1.Electrical symbols and abbreviations 3.2.Meaning of electrical drawings 3.3.Drawing of electrical diagrams e.g. block, schematic, circuit, line and wiring 3.4.Drawing of Electrical and Electronic drawings using an appropriate CAD software e.g. block, schematic, PCB, circuit, line and wiring 3.5.Simulation of Electrical and electronic drawings 3.6.Installation of Electrical components in a building plan using AutoCAD	<ul style="list-style-type: none"> • Practical Assessment • Project • Third Party Report • Portfolio of Evidence • Written Assessment • Oral Questioning

Suggested Methods of Delivery

- Practical
- Projects

- Demonstrations
- Group discussions
- Interactive lectures
- Industrial attachment
- Viewing of related videos

Recommended Resources for 25 trainees

S/No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Item: Trainee)
A	Learning Materials			
1.	Textbooks	K.Morling Geometric and Engineering drawing	5 pcs	1:5
2.	Drawing instruments	T-squares, set squares, drawing sets, Masking tapes	25	1:1
3.	Power point presentations	For trainer's use	1	1:25
B	Learning Facilities & infrastructure			
4.	Lecture/theory room	50m ²	1	1:25
5.	Computer Workshop	200m ² Computers installed with relevant CAD packages	1	1:25
6.	Drawing tables		25	1:1