

# TECHNICAL DRAWING

**UNIT CODE:** ENG/CU/EI/CC/04/4

## Relationship to Occupational Standards

This unit addresses the unit of competency: Prepare and interpret technical drawings

**Duration of Unit:** 20 hours

## Unit Description

This unit covers the competencies required to prepare and interpret technical drawings. It involves competencies to select, use and maintain drawing equipment and materials. It also involves producing plain geometry drawings, solid geometry drawings, orthographic drawings of components and Electrical drawings.

## Summary of Learning Outcomes

1. Use and maintenance of drawing equipment and materials
2. Produce plane geometry drawings
3. Produce solid geometry drawings
4. Produce and orthographic drawings
5. Produce Electrical drawings

## Learning Outcomes, Content and Suggested Assessment Methods:

Learning Outcome	Content	Suggested Assessment Methods
1. Use and maintenance of drawing equipment and materials	<ul style="list-style-type: none"><li><input type="checkbox"/> Identification and care of drawing equipment</li><li><input type="checkbox"/> Identification and care of drawing materials</li><li><input type="checkbox"/> Reference to manufacturer's instructions and work place procedures on use and maintenance of drawing equipment and materials</li><li><input type="checkbox"/> Reference to relevant environmental legislations</li><li><input type="checkbox"/> Use of Personal Protective Equipment (PPEs)</li></ul>	<ul style="list-style-type: none"><li><input type="checkbox"/> Observation</li><li><input type="checkbox"/> Oral questioning</li><li><input type="checkbox"/> Written tests</li></ul>

2. Produce plane geometry drawings	<input type="checkbox"/> Types of lines in drawings <input type="checkbox"/> Construction of geometric forms e.g. squares, circles <input type="checkbox"/> Construction of different angles <input type="checkbox"/> Measurement of different angles <input type="checkbox"/> Bisection of different angles and lines <input type="checkbox"/> Standard drawing conventions	<input type="checkbox"/> Oral questioning <input type="checkbox"/> Practical tests <input type="checkbox"/> Observation
3. Produce solid geometry drawings	<input type="checkbox"/> Interpretation of sketches and drawings of patterns e.g. cylinders, prisms and pyramids <input type="checkbox"/> Sectioning of solids e.g. prisms, cones <input type="checkbox"/> Development and interpenetrations of solids e.g. cylinder to cylinder and cylinder to triangular, prism	<input type="checkbox"/> Observation <input type="checkbox"/> Practical tests <input type="checkbox"/> Oral questioning
4. Produce orthographic drawings	<input type="checkbox"/> Meaning of pictorial and orthographic drawings <input type="checkbox"/> Meaning of sectioning <input type="checkbox"/> Meaning of symbols and abbreviations <input type="checkbox"/> Drawing and interpretation of orthographic elevations <input type="checkbox"/> Dimensioning of orthographic elevations <input type="checkbox"/> Sectioning of views <input type="checkbox"/> Assembly drawing	<input type="checkbox"/> Observation <input type="checkbox"/> Practical tests <input type="checkbox"/> Oral questioning
5. Produce electrical drawings	<input type="checkbox"/> Electrical symbols and abbreviations <input type="checkbox"/> Meaning of electrical drawings <input type="checkbox"/> Drawing of electrical diagrams e.g. block, schematic, circuit, line and wiring <input type="checkbox"/> Interpretation of electrical drawings	<input type="checkbox"/> Observation <input type="checkbox"/> Oral questioning <input type="checkbox"/> Practical tests

### Suggested Methods of Delivery

- Projects
- Demonstration by trainer
- Practice by the trainee
- Discussions

## Recommended Resources

- Drawing room
- Drawing instruments e.g. T-squares, set squares, drawing sets
- Drawing tables
- Pencils, papers, erasers
- Masking tapes

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