



THE REPUBLIC OF KENYA

COMPETENCY BASED CURRICULUM

FOR

BUILDING TECHNOLOGY

KNQF LEVEL 6

ISCED PROGRAM CODE: 0732 554B



TVET CDACC

P.O BOX 15745-00100

NAIROB

TECHNICAL DRAWING

UNIT CODE: CON/CU/BUT/CC/02/6/B

Relationship to Occupational Standards

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

Duration of Unit: 150 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, pictorial and orthographic drawings of components and application of Computer Aided Design (CAD) packages.

Summary of Learning Outcomes

1. Use and maintain drawing equipment and materials
2. Produce plane geometry drawings
3. Produce solid geometry drawings
4. Produce Orthographic and Pictorial Drawings
5. Apply CAD packages

Learning Outcomes, Content and Suggested Assessment Methods:

Learning Outcome	Content	Suggested Assessment Methods
1. Use and maintain drawing equipment and materials	<ul style="list-style-type: none">• Identification and care of drawing equipment• Identification and care of drawing materials• Reference to manufacturer's instructions and work place procedures on use and maintenance of drawing equipment and materials• Reference to relevant environmental legislations	<ul style="list-style-type: none">• Observation• Oral Questioning• Written Tests

	<ul style="list-style-type: none"> • Use of Personal Protective Equipment (PPEs) 	
2. Produce plane geometry drawings	<ul style="list-style-type: none"> • Types of lines in drawings • Construction of geometric forms e.g. squares, circles • Construction of different angles • Measurement of different angles • Bisection of different angles and lines • Standard drawing conventions 	<ul style="list-style-type: none"> • Oral Questioning • Practical tests • Observation
3. Produce solid geometry drawings	<ul style="list-style-type: none"> • Interpretation of sketches and drawings of patterns e.g. cylinders, prisms and pyramids • Sectioning of solids e.g. prisms, cones • Development and interpenetrations of solids e.g. cylinder to cylinder and cylinder to triangular, prism 	<ul style="list-style-type: none"> • Observation • Practical tests • Oral Questioning
4. Produce orthographic and Pictorial drawings	<ul style="list-style-type: none"> • Meaning of pictorial and orthographic drawings • Meaning of sectioning • Meaning of symbols and abbreviations • Drawing and interpretation of orthographic elevations • Dimensioning of orthographic elevations • Sectioning of views • Meaning of pictorial drawings • Drawing objects in isometric view • Drawing objects in oblique view 	<ul style="list-style-type: none"> • Observation • Practical tests • Oral Questioning
5. Apply CAD packages	<ul style="list-style-type: none"> • Identification of CAD packages e.g. AutoCAD, circuit maker • Use of CAD packages in drawing of: 	<ul style="list-style-type: none"> • Observation • Oral Questioning • Practical tests

	<ul style="list-style-type: none"> • Plane geometry • Solid • Orthographic • Pictorial 	
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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
- Computers installed with relevant CAD packages