

BUILDING WORKS

UNIT CODE: CON/CU/CET/CR/07/6/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Carry out building works

Duration of Unit: 200 hours

Unit Description

This unit describes competencies required to carry out building works. It involves executing site preliminary works, building temporary works, substructure works, superstructure works, building finishes and external works.

Summary of Learning Outcomes

- 1 Execute site preliminary works
- 2 Execute building temporary works
- 3 Execute substructure works
- 4 Execute superstructure works
- 5 Execute building finishes
- 6 Execute building external works

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Execute site preliminary works	<ul style="list-style-type: none">• Site investigation/• Land surveying• Building Drawings and interpretation• Surveying tools and equipment• Building codes• Building site conditions• Plant and equipment• Building safety regulations• Hoarding/screening materials• Site hoarding/fencing• Hoarding tools• Surveying tools and equipment• Survey maps	<ul style="list-style-type: none">• Practical assignment/project• Oral/written

	<ul style="list-style-type: none"> ● Surveying methods ● Soil sampling ● Building site services ● Site facilities, infrastructure and traffic ● Building codes ● Levelling ● Site layout ● Construction site zones ● Site installation ● Methods of demolishing ● Safety consideration during demolition ● Masonry ● Concrete 	
2. Execute building temporary works	<ul style="list-style-type: none"> ● Trench timbering materials and tools ● Soil mechanics ● Site investigation ● Trench timbering methods ● Trench layout design ● Trench timbering dismantling ● Types of scaffolds ● Scaffold drawing ● Assembling and dismantling of scaffolds ● Personal protective equipment ● Site safety requirements ● Site clearance ● Structural elements ● Types of formwork ● Formwork materials ● Formwork measurements and dimensions ● Timber properties ● Formwork construction/installation ● Formwork dismantling 	<ul style="list-style-type: none"> ● Practical assignment/project ● Oral ● Written

	<ul style="list-style-type: none"> ● Types of foundations ● Types of shores ● Shoring materials ● Shores connection methods ● Construction laws ● Local authority guidelines ● Shoring construction and erection ● Shoring dismantling 	
3. Execute substructure works	<ul style="list-style-type: none"> ● Site investigation/surveying ● Building Drawings and interpretation ● Construction dimensions ● Setting out tools and equipment ● Setting out procedure ● Building codes ● Building foundations ● Soil analysis ● Timbering ● Dewatering methods ● Excavation plant and equipment ● Types of foundations ● Working drawings ● Foundation reinforcement ● Architectural layout ● Masonry ● Building codes ● Working drawing ● Levelling ● Mortar/ concrete technology ● Damp proof membrane ● Construction materials ● Termite control ● Damp proof membrane ● Concrete technology ● Floor reinforcement 	<ul style="list-style-type: none"> ● Practical assignment/project ● Oral ● Written

<p>4. Execute superstructure works</p>	<ul style="list-style-type: none"> ● Structural elements ● Codes of practice ● Design dimensions ● Column design ● Structural design drawings ● Reinforcement steel ● Formwork ● Concrete materials ● Concrete mix design ● Concrete testing methods ● Concrete compaction methods ● Wall dimensions ● Structure openings ● Building and design plans ● Mortar materials and mixing ● Mortar joints ● Codes of practice ● Wall construction ● Occupational safety and health standards ● Environment Act and by laws ● Beam design ● Stair design ● Slab design ● Formwork props ● Compaction methods ● Floor finishing methods ● Types of roofs ● Roof materials ● Timber properties ● Steel properties ● Truss design ● Truss installation ● Roof material installation method ● Fireplace design layout ● Fireplace elements 	<ul style="list-style-type: none"> ● Practical assignment/project ● Oral ● Written
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	<ul style="list-style-type: none"> ● Fireplace construction ● Fireplace finishing ● Types of fixtures ● Types of fittings ● Installation methods ● Installation tools and equipment 	
5. Execute building finishes	<ul style="list-style-type: none"> ● Types of floor finishes ● Floor finishing tools & Equipment ● Background preparation. ● Floor finishing ● Painting materials ● Painting tools & Equipment ● Preparation of painting surface ● Paint mixing ● Application of paint ● Protection of painted surfaces ● Facing materials, tools and equipment ● Preparation of facing materials ● Preparation of facing background ● Fixing of facings ● Wall mastering materials, tools and equipment ● Preparation of wall surfaces ● Application of wall master ● Protection of wall mastered surface ● Lining materials, tools and equipment ● Background preparation. ● Fixing of Linings ● Cladding materials, tools and equipment ● Background preparation ● Application of claddings ● Plastering tools and equipment. 	<ul style="list-style-type: none"> ● Written ● Oral ● Projects/practical assignment

	<ul style="list-style-type: none"> ● Plastering materials ● Background preparation ● Mixing ratios/Mortar making ● Application of plaster ● Tools, materials and equipment ● Types of ceiling finishes ● Application of ceiling finishes ● Background preparation ● Pointing and jointing materials, tools and equipment ● Preparation of materials ● Background preparation ● Pointing and jointing ● Rough casting materials tools and equipment ● Preparation of materials ● Background preparation ● Application of rough cast 	
6. Execute building external works	<ul style="list-style-type: none"> ● Types of external paving ● Survey ● Design interpretation ● Levelling ● Bonding paving joints ● Plan interpretation ● Ground preparation ● Beautification ● Ground irrigation methods ● Building codes ● Excavation ● Laying drainage pipes ● Drainage collection chambers ● Types of fences ● Gate shutter materials and preparation ● Taking measurements ● Gate dimensions ● Gate shutter fixing 	<ul style="list-style-type: none"> ● Oral ● Projects/practical assignments ● Written

Suggested Methods of Instruction

- Demonstration by trainer
- Practical work by trainee
- Demonstration videos
- Project
- Group discussions

Recommended Resources

- measuring and drawing tools
- computers/internet
- printers/plotting device
- calculator
- Codes of practice
- mechanical conventions,
- site office
- standard manuals and guidelines
- Dust coat
- First aid kits

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