

Civil Construction Learnerships

NQF2 Construction: Roadworks

SAQA ID
24133

PURPOSE

The purpose of this learnership is to develop the skills required to conduct the essential operations associated with roadworks operations.

The focus of this programme is to enable Learners to develop competence in a range of knowledge and skills to operate efficiently within the legislative, safety and quality systems, which govern roadworks construction

Core unit standards

- Describe and interpret the composition, roleplayers, processes and role of the construction industry
- Establish and prepare a work area
- Handle, transport, store and utilize hazardous materials on a civil construction site
- Identify describe and use materials in civil engineering construction
- Implement roadside safety procedures
- Maintain records on a construction site
- Read and interpret construction drawings and specifications
- Render basic first aid
- Use and maintain small plant and equipment on a construction site
- Work in confined spaces on construction sites

Elective unit standards

- Batch and mix concrete by volume
- Develop and use keyboard skills to enter text
- Transport personnel, material and equipment using Light Delivery Vehicle
- Apply health and safety to a work area
- Apply hot mix asphalt
- Apply productivity principles on a construction site
- Apply quality principles on a construction site
- Conduct a bituminous seal operation
- Conduct routine site tests to fresh and hardened concrete
- Control vegetation by use of herbicides
- Demonstrate an understanding and implement environmental initiatives on a construction activity
- Erect and maintain guardrails on a road construction site
- Erect Anti-Dazzle screen
- Install and maintain road furniture
- Install road studs
- Maintain and repair un-surfaced road shoulders
- Mix and apply slurry (By mixer)
- Operate a mechanical core drill
- Operate a moving tractor: boom, rotary slasher
- Operate a personal computer system
- Paint road symbols by spray gun
- Protect banks
- Repair concrete and segmented concrete (block) road surface
- Replace batter poles/boards, profiles and layer works pegs from given survey data
- Set out control point for centre line and edge line marking for road marking
- Use a concrete dumper to haul and dump material
- Use a sideboom to lift, lower and carry material
- Use a small self-propelled compactor to compact material
- Use a tractor to tow various construction implements and attachments
- Construct precast kerbs and concrete channels on a roadworks construction site
- Erect directional signs (Range > 10 m2)
- Erect directional signs overhead < 10 m2
- Erect fencing
- Erect palisade fencing
- Install road markers
- Operate mechanical painting machine for remarking
- Repair/replace minor structures

Fundamental unit standards

- Engage in a range of speaking and listening interactions for a variety of purposes
- Identify and respond to selected literary texts
- Read and respond to a range of text types
- Write for a variety of different purposes
- Access and use information from texts
- Apply basic knowledge of statistics & probability to influence the use of data & procedures in order to investigate life related problems
- Demonstrate understanding of rational and irrational numbers and number systems
- Maintain and adapt oral communication
- Measure, estimate and calculate physical quantities and explore, describe and represent geometrical relationships in 2-dimensions in different life or workplace contexts
- Use language and communication in occupational learning programmes
- Use mathematics to investigate and monitor the financial aspects of personal and community life
- Work with a range of patterns and functions and solve problems
- Write for a defined context