



GVTC Training Programmes Information

Description of GVTC Programs (based on the levels)

The Gateway VTC Offers three programs in Phase 1 of operations in Bentol, namely Plumbing and Pipefitting (PPF), Electrical and Solar (ELS), and Road Maintenance and Construction. In addition, GVTC will also offer a Carpentry and Joinery Program at its Satellite Campus at Firestone's Rubberwood Plant starting in June 2024 and short demand-driven courses based on industry demands and requests. The trade areas (programs per sector) will be:

1. Plumbing and Pipefitting (PPF)
2. Electrical and Solar. (ELS)
3. Road Maintenance and Construction (RMTC)
4. Carpentry & Joinery and Furniture & Cabinetmaking

These programs focus on preparing the candidates to find employment in the general building and construction sector and later in the road construction and maintenance sector.

Generic unit standards for all programs

In addition to the formal program module the GVTC will also offer as an add-on to the main program the following:

- Numeracy
- Communication
- Building Science
- Technical Drawing
- Entrepreneurial Training
- Essential Skills
- Basic Welding
- IT (Computer)

The main elements of trade programs are the basic knowledge and skills required for the specific trade area.

The main outcomes of these programs are as follows:

Plumbing and Pipefitting

This trade aims to enable trainees to obtain the competencies required for performing plumbing tasks such as applying safety rules and regulations; using and maintaining hand tools; handling and storing plumbing materials; measurements and calculations and others.

Specific unit standard outcomes:

Level 2

- Apply safety rules and regulations in plumbing operations
- Use and maintain hand tools
- Handle and store plumbing materials

- Read and produce basic sketches and drawings used in plumbing operations
- Carry out basic excavation
- Perform basic estimations, measurements, and calculations
- Plan and organize plumbing work
- Perform soft soldering operations
- Perform basic metalwork
- Work safely on scaffolding, work platforms, and ladders
- Perform basic pipework
- Carry out basic maintenance of domestic plumbing installations

Level 3

- Communicate effectively with others
- Use and maintain power tools
- Apply basic manual metal arc welding techniques
- Perform calculations related to plumbing operations
- Carry out basic leveling
- Perform basic bricklaying and plastering
- Perform basic concreting
- Read and interpret basic building drawings
- Apply basic oxy-acetylene welding techniques
- Install and adjust water service controls and devices
- Install water main pipe system
- Set out and install water services

Level 4

- Install gas supply system as part of plumbing operations
- Install storm water and sub-soil drainage systems as part of plumbing operations
- Install below-ground sanitary drainage systems as part of plumbing operations
- Install prefabricated inspection openings and enclosures as part of plumbing operations
- Install gutters and downpipes
- Install and fit sanitary fixtures as part of plumbing operations
- Erect and dismantle scaffolding as part of plumbing operations
- Develop innovative ideas for the plumbing workplace

Electrical and Solar

This trade aims to enable trainees to obtain the competencies required for performing electrical tasks such as applying safety rules and regulations; using and maintaining hand tools; handling and storing electrical and solar materials; measurements and calculations, apply and demonstrate knowledge in all aspects of the electrotechnology environment and others.

Specific unit standard outcomes:

Level 2

- Apply safety rules and regulations in an electrotechnology environment
- Communicate in an electrotechnology work environment
- Use hand and power tools safely in electrotechnology operations
- Plan and organize own work in an electrotechnology environment
- Perform basic soldering and de-soldering procedures for electrotechnology works
- Prevent electrostatic damage to electrotechnology components
- Perform basic metal work

Level 3

- Apply knowledge of basic circuit protection devices
- Apply knowledge of electrotechnology cables and accessories and install cables as part of electrotechnology operations

- Demonstrate knowledge of basic electronic components and circuits
- Design and construct a single-phase electrical circuit
- Use test equipment for electrotechnology measurements
- Demonstrate knowledge of emergency preparedness and response
- Demonstrate knowledge of electrotechnology fundamentals
- Conduct insulation resistance tests
- Draw and interpret basic electrotechnology drawings and symbols
- Install electric wire ways

Level 4

- Apply basic knowledge of analogue and digital electronics
- Perform basic installation and testing of wiring for single phase domestic and industrial electrical circuits
- Install, repair and maintain lighting systems and structures
- Install and test electrical appliances

Road Maintenance and Construction RMTC

A graduate with a Certificate 1 in Road Construction and Maintenance (provisionally LNQF Level 3) will be able to construct and maintain secondary and feeder gravel roads, concrete elements, erect road furniture, signage and markings, repair road defects according to specifications

Specific unit standard outcomes:

Level 2

- Implement health, safety, environmental, and quality requirements on a road construction site
- Apply and maintain hand and power tools according to the manufacturer's specifications
- Operate and maintain small plant and equipment to manufacturers' specifications

Level 3

- Execute fundamentals for roadworks and maintenance to company and national standards
- Construct secondary and feeder gravel roads
- Erect road furniture, signage, and markings according to site and legal requirements

Level 4

- Construct road concrete elements according to drawings and specifications
- Perform road maintenance according to company policy, specifications, and contract requirements
- Work readiness

Carpenter & Joiner or Furniture & Cabinetmaker

This qualification prepares individuals for careers as skilled carpenters, joiners, furniture makers, and cabinet makers, focusing on essential woodworking tasks. It encompasses competencies such as timber joint construction, the use of hand and power tools, sketching, estimation, manufacturing of timber products, surface finishing, product installation, and foundational skills in health, safety, and business. Entry prerequisites are not required, prioritizing practical outcomes and the application of skills in real-world contexts. Candidates with existing competencies may be eligible for credit, facilitating progression through levels 2-4.

Level 2: National Vocational Certificate in General Woodworking.

Level 3: Specialization in either Carpentry & Joinery or Furniture & Cabinet Making.

Level 4: Specialization in either Carpentry & Joinery or Furniture & Cabinet Making

Specific unit standard outcomes:

Level 2:

- Carryout Safety Health Environmental Quality principles to a work area

- Apply essential work and life skills
- Plan and organise woodworking activities
- Demonstrate an understanding of timber
- Use and maintain woodworking hand tools
- Prepare timber by hand
- Construct timber joints by hand
- Use and maintain portable power tools
- Perform basic woodwork finishes
- Manufacture basic wood products
- Transport and store joinery and woodwork materials and finished products

Level 3:

Carpentry & Joinery

- Carryout Safety Health Environmental Quality principles to a work area 3
- Apply essential work and life skills 3
- Construct complex timber joints by hand
- Operate and maintain stationary machines in woodworking
- Prepare timber (Machine)
- Perform advance wood surface finishing processes
- Perform glazing
- Install and replace windows and doors
- Construct and erect shuttering
- Manufacture and erect basic roofing
- Install ceilings, partitions, mouldings, wall panelling and floors

Furniture & Cabinetmaking

- Carryout Safety Health Environmental Quality principles to a work area
- Apply essential work and life skills
- Construct complex timber joints by hand
- Operate and maintain stationary machines in woodworking
- Prepare timber (Machine)
- Perform advance wood surface finishing processes
- Perform glazing
- Decorate furniture
- Manufacture and install built-in cupboards
- Manufacture timber chairs, couches, tables and beds
- Install ceilings, partitions, mouldings, wall panelling and floors

Level 4:

Carpentry & Joinery

- Perform advanced machining processes using stationary machines
- Construct complex timber joints using machines
- Set out and manufacture complex doors and door frames
- Install complex doors and door frames
- Assemble and install advance roof trusses
- Construct and erect advance shuttering
- Renovate roof and roof trusses
- Assemble and install wooden stairs
- Set out and manufacture wooden stair components for straight flight stairs
- Construct suspended ceilings

- Construct wooden ceilings
- Construct wooden flooring

Furniture & Cabinetmaking

- Perform advanced machining processes using stationary machines
- Identify, select and install specialized cabinet accessories
- Construct and install built-in furniture
- Construct and install built-in cabinets
- Set out and manufacture timber furniture
- Renovate furniture products
- Renovate Cabinet products

Program durations

	Institutional	Industry attachment
Level 2	6 months institutional (including internal assessment)	6 months workplace-based
Level 3	6 months institutional	5 months workplace-based 1 month assessment preparations and final assessment
Level 4	4 months institutional	7 months workplace-based 1 month assessment preparations and final assessment

Short Courses (2024)

The following programs will be offered as add-on or short courses at the Gateway VTC.

Short courses	Description	Duration	Assessment and Certification
Health and safety	General Health and safety Firefighting Basic First aid Working on heights Risk management	1-2-weeks	Internal Assessment GVTC Certificate of competence (Unit specific) Can also be offered as stand-alone courses
Business concepts and operations	Business Concepts Business profits Business Overheads Sustainability	3 days	Internal Assessment GVTC Certificate of competence
Basic Welding	Basic Health and safety Welding equipment Welding concepts Various welding methods	3-5 days	Internal Assessment GVTC Certificate of competence (Unit specific)

	Practical Component		
Basic Hand skills (Employability skills)	Basic Health and safety Use and care of various hand tools Use and care of basic power tools Various fixtures and uses Practical Component/ Bench work	3 weeks	Internal Assessment GVTC Certificate of competence (Unit specific)
Essential Skills	Communication Document use Numeracy Working in teams Reading skills Critical thinking Business Understanding Health and safety	4-6 weeks	Internal Assessment GVTC Certificate of competence (Unit specific)
Steel fixing	Health and safety Working from heights Purpose of steel in concrete/ reinforce steel characteristics Reading and interpreted steel schedules and drawings Steel fixing tips Practical component	1 – 2 weeks	Internal Assessment GVTC Certificate of competence (Unit specific)
Tender Documentation / MPW Standard Bidding Documents	Introduction to tendering Tender requirements Tender documentation Company profiles	4-5 days	Internal Assessment GVTC Certificate of competence
Office Administration	Basic receptionist tasks Filing and Record keeping Answering of phone calls Minute taking Basis IT skills	1-2 months	Internal Assessment GVTC Certificate of competence (Unit specific)
Computer IT training	Basics components of computers Uses of a computer Basic operations of computer Create documents, file and print	1-2 weeks	Internal Assessment GVTC Certificate of competence (Unit specific)
Electrical Maintenance and repairs	Basic knowledge of electrical Electrical concepts Use and care of electrical tools House fixtures, appliances and systems Basic maintenance and repairs Practical component	3 weeks	Internal Assessment GVTC Certificate of competence (Unit specific)
Plumbing Maintenance and repairs	Basic knowledge of plumbing systems Use and care of plumbing tools Maintain system components Repair or replace components Practical component	3 weeks	Internal Assessment GVTC Certificate of competence (Unit specific)
Solar Installation	Knowledge of solar systems Installation procedures and processes Testing of systems	1-2 months	Internal Assessment GVTC Certificate of competence (Unit specific)
Solar Plant Maintenance	Routine maintenance Preventative maintenance Fault detection and Repairs	1-2 weeks	Internal Assessment GVTC Certificate of competence (Unit specific)

Internal and external assessment

Gateway VTC's assessment process will be based on competency-based assessment principles. Competence-based assessment requires the gathering of evidence where performance can be evaluated against recognized competency or occupational standards. All internal assessments will be conducted by GVTC trainers. External summative assessments will be conducted by registered trained assessors, moderated by moderators, and verified by Industry verifiers. The whole assessment process will be quality assured by the Industry Skills Advisory Committees (ISAC).

Certification

The Gateway VTC will in the absence of a TVET Authority (LiTCOM) take responsibility for all internal and external assessments.

The assessment outcomes will be recorded and the GVTC Board will issue certificates of competence on behalf of the industry. The ISAC will play a key role in the quality assurance of the assessment processes. They will appoint external assessors from the industry to assess the candidates against a set of outcomes. Once declared competent, a candidate will be issued a certificate from the Gateway VTC signed by the Board and the ISAC.

Entry requirements

1. Road Maintenance and Construction (RMTC)
Candidates should possess a **Grade 10 certificate and at least a D symbol in English.**
2. Plumbing and Pipefitting (PPF)
Candidates should possess a **Grade 10 certificate.**
3. Electrical and Solar. (ELS)
Candidates should possess a **Grade 12 certificate with a pass in Mathematics and English**
4. Carpentry and Joinery or Furniture and Cabinetmaking
Candidates should possess a **Grade 10 certificate.**