



TRAINING FORCE
Linking Training to Industry

ENGINEERING

FURTHER EDUCATION AND TRAINING CERTIFICATE: WELDING APPLICATION & PRACTICE (MANUFACTURING & ENGINEERING)

COURSE INFORMATION

SAQA ID: 57887 (LP: 58536)

NQF Level: 4

Learnership Duration: 12 months

Minimum Credits: 158

Contact Sessions: Minimum Contact Session, including remediation (if required) and Portfolio Building, for this Qualification is **32 Days**

Accrediting SETA: Manufacturing, Engineering and Related Services Sector Education & Training Authority

PURPOSE

This Qualification is the last of a progression, which culminates in the use of a range of complex welding methods. The purpose of this Qualification is to develop learners who, after completion, demonstrate the ability to:

- Use and apply a variety of plate and pipe welding processes according to performance standards.
- Participate in self-directed activity, by complying with welding procedures and maintaining business objectives.
- Demonstrate leadership through effective interaction and communication with clients, peers and members of supervisory and management levels.

ENTRY CRITERIA

- Communication at NQF Level 3.
- Mathematical Literacy at NQF Level 3.

QUALIFICATION RULES

The qualifying learner will achieve this qualification by complying with the following rules of combination for the accumulation of credits totalling 158:

- Fundamental unit standards totalling 56 credits are compulsory.
- Core unit standards totalling 90 credits are compulsory.
- Elective unit standards totalling a minimum of 12 credits.

EQUIPMENT NEEDED

Welding rods • Compressor • Cored-wire • Acetylene & oxygen • Hand tools • Welding machine • PPE • Gloves • Goggles • Boots • CO2 gas bottles • Argon gas bottles • Grinder, (dependent on electives chosen) Fire extinguisher • First aid consumables • Access to a pipe cutting machine • Access to a profile cutting machine • Aluminium material • Stainless steel material • Carbon steel • Access to cranes • Access to lifting machines.

MARKET INFORMATION

Target Market: Welders without formal qualifications • Entrepreneurs • Mechanics • Electricians • Various Tradesmen.

Target Industries: Manufacturing • Mining • Construction • Small businesses • Maintenance and repairs • Municipalities.

COURSE INFORMATION

- **Mentor Requirements:** Mentor must have at least 5 years' experience in an engineering environment.
- **Workplace Approval:** Required
- **Workplace Requirements:** Learners must be exposed to all Outcomes related to this qualification.

SKILLS OUTCOMES

- Use and apply a variety of plate and pipe welding processes according to performance standards.
- Participate in self-directed activity, by complying with welding procedures and maintaining business objectives.
- Demonstrate leadership through effective interaction and communication with clients, peers and members of supervisory and management levels.

GENERAL INFORMATION



Credit Accumulation Transfer (CAT): CAT exemption is only applicable to approved learners. Approved learners will have reduced contact days. Learners who do not meet the CAT requirements will be required to complete all the Clusters.



FISA Requirements: Final Integrated Summative Assessment is not a requirement for the successful completion of this learnership.



Recognition of Prior Learning (RPL): RPL is not available for this qualification



Additional Language: This qualification requires evidence in an additional South African Language. Refer to TF language policy for guidelines.



Training Methodology: This learnership is not available on UHub

UNIT STANDARDS

Cluster 1 (compulsory)

Outcome	SAQA ID	Name of Unit Standard	Credits
Core	243049	Weld carbon steel pipe using the cored-wire welding process in all positions	10
Core	243054	Weld carbon steel pipe, using the gas tungsten arc welding process in all positions	20
Core	243062	Weld carbon steel pipe, using the shielded metal arc welding process in all positions	20
Core	243059	Weld workpieces in the stainless-steel material group, using the gas metal arc welding process in all positions	10
Core	243089	Weld workpieces within the aluminium material group, using the gas metal arc welding process in all positions	10
Core	243079	Weld workpieces within the aluminium material group, using the gas tungsten arc welding process in all positions.	10
Core	243057	Weld workpieces within the stainless-steel material group, using the gas tungsten arc welding process in all positions	10

- Recommended training days for Cluster 1 is 17 days

Cluster 2 (compulsory) – Credit Accumulation Transfer is applicable to this cluster

Outcome	SAQA ID	Name of Unit Standard	Credits
Fundamental	119472	Accommodate audience and context needs in oral/signed communication	5
Fundamental	119458	Analyse and respond to a variety of literary texts	5
Fundamental	119466	Interpret a variety of literary texts	5
Fundamental	119457	Interpret and use information from texts	5
Fundamental	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	6
Fundamental	119462	Engage in sustained oral/signed communication and evaluate spoken/signed texts	5
Fundamental	119469	Read/view, analyse and respond to a variety of texts	5
Fundamental	9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	4
Fundamental	119471	Use language and communication in occupational learning programmes	5
Fundamental	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	6
Fundamental	119459	Write/present/sign for a wide range of contexts	5

- Recommended training days for Cluster 1 part 1 is 12 days

Cluster 3 (electives - Choose any unit standards with a minimum value of 12 Credits)

Outcome	SAQA ID	Name of Unit Standard	Credits
Elective	13254	Contribute to the implementation and maintenance of business processes	10
Elective	14698	Cut materials using plasma cutting	4
Elective	10981	Supervise work unit to achieve work unit objectives (individuals and teams)	12
Elective	243065	Weld carbon steel pipe using the gas metal arc welding process in all positions	20
Elective	243088	Weld carbon steel pipe with combination welding processes using the gas tungsten welding and gas metal arc welding, in all positions	8
Elective	243085	Weld carbon steel pipe with combination welding processes using the gas tungsten welding and gas metal arc welding, in all positions	8
Elective	14721	Weld pip with oxy-acetylene gas process	20

- Recommended training days for Cluster 3 is 3 days however this may dependent on electives chosen