National Vocational Certificate in Electrical Engineering (Electronics) (Level 3)

NQF Level of qualification: 3

Total credits available: 120

Total credits required: 120

	Compulsory	**Elective**
Level 3 credits available	**120**	**-**
Minimum totals required	**120**	**-**

Registration date: 29 November 2018

Scheduled review date: 2023

Body responsible for the qualification: Namibia Training Authority through the Mining Quarrying, Construction, Electricity, Gas, Water Supply and Sanitation Industry Skills Committee.

Other bodies whose unit standards are included in the qualification: None

1 PURPOSE

This qualification recognises people who have the competencies required for working in the field electronics. It is awarded to people who have demonstrated the skills and knowledge required to analyse advanced analogue electronics circuits; apply advanced methods of Alternating Current (AC) and Direct Current (DC) electrical circuits analysis; apply knowledge of sequential digital electronics circuits; apply knowledge of communication systems, install communication systems; operate electronics systems; install electronics systems; repair electronics systems and devices; produce a Printed Circuit Board; demonstrate and apply knowledge of power electronics.

They further have a good understanding of apply knowledge of basic mathematics in different context; apply knowledge of fundamental engineering science and engineering drawing in different contexts.

The entry requirement for this qualification is a National Vocational Certificate in Electrical Engineering (Electronics) (Level 2) or equivalent qualification and the ability to demonstrate basic communication skills in the English language and numeracy.

This qualification leads vertically to the National Vocational Certificate in Electrical Engineering (Electronics) (Level 4).

2 REGULATIONS FOR THE QUALIFICATION

2.1 Summary of qualification requirements

This qualification will be awarded to people who are credited with a minimum of **120** credits and have met the requirements of both the compulsory and elective sections, as well as all requirements for Workplace Integrated Learning (WIL) as laid out in the

National Policy On Work-Integrated Learning for Technical and Vocational Education and Training (TVET).

2.2 Detailed qualification requirements

Compulsory

All the unit standards listed below are required.

FIELD: Manufacturing, Engineering and Technology
Subfield: Electrical Engineering
Domain: Electronics

Unit No.	Unit Standard Title	Level	Credits
2023	Analyse advanced analogue electronics circuits	3	8
2024	Apply advanced methods of Alternating Current (AC) and Direct Current (DC) electrical circuits analysis	3	10
2025	Apply knowledge of sequential digital electronics circuits	3	10
2026	Apply knowledge of communication systems	3	10
2027	Install communication systems	3	10
2028	Operate electronics systems	3	3
2029	Install electronics systems	3	15
2030	Repair electronics systems and devices	3	20
2031	Demonstrate and apply knowledge of power electronics	3	8
2032	Produce a Printed Circuit Board	3	8

AND

FIELD: Physical, Mathematical and Computer Sciences
Subfield: Numeracy
Domain: Foundation Numeracy Skills

Unit ID	Unit Standard Title	Level	Credits
891	Apply knowledge of basic mathematics in different context	3	6

AND

FIELD: Manufacturing, Engineering and Technology
Subfield: Foundational Engineering Science and engineering drawing
Domain: Foundation Engineering Science and Drawing skills

Unit ID	Unit Standard Title	Level	Credits
894	Apply knowledge of fundamental engineering science in different contexts	3	6
901	Apply fundamental knowledge of engineering drawing in different contexts	3	6

3 CREDIT RECOGNITION AND TRANSFER ARRANGEMENTS

Credits for any version of a unit standard of the same identification number will be recognised in the award of this qualification.

4 SPECIAL ARRANGEMENTS

4.1 Providers seeking registration and/or accreditation to deliver this qualification must meet the following special arrangements.

4.1.1 This qualification will be offered to trainees **either** including a period of 6 month of **industrial / job attachment,** or as an **apprenticeship scheme** of a duration determined and agreed upon by the employer and the training provider on a ratio of 70/30 (70% at workplace and 30% at training institution) basis.

Industrial/job attachment is defined as a period in a workplace setting where a trainee obtains structured practical experience in a specific occupation in order to complement competencies acquired during training at a technical vocational training provider (TVTP).

Apprenticeship refers to the system of work integrated learning, where an apprentice is employed by a company on contractual basis, earning a monthly salary, learning and working side-by-side with an experienced mentor.
In this case the employer must be an NTA approved entity (company) to register apprentices and has to identify a suitable training provider to provide the apprentice with the opportunity to gain skills and knowledge from theoretical training.

Employers and training providers are encourage to consult the **National Policy On Work-Integrated Learning (WIL) for Technical and Vocational Education and Training (TVET) Sector** for further details on WIL implementation.

4.1.2 Providers involved in the assessment of this qualification and the associated unit standards must comply with the national assessment framework for the TVET system up to and including level 5 of the National Qualifications Framework. Assessment will include performance and achievement assessment acquired through work integrated learning periods.
Assessment arrangements apply to all occupations and industries which are encompassed in the technical vocational education and training sector.

4.1.3 Providers of this qualification and the associated unit standards must be registered and/or accredited.

4.1.4 Providers of this qualification and their associated unit standards must have access to all equipment and facilities detailed in the tools and equipment list of the relevant training program.

4.2 Competencies covered in this qualification may be assessed through Recognition of Prior Learning (RPL).

4.3 Further relevant information and documentation may be accessed through:

Namibia Training Authority
Rand Street
Khomasdal
Namibia
Telephone number: 061 207 8550
Facsimile number: 061 207 8551

5 TRANSITION ARRANGEMENTS

5.1 Non National Qualifications Framework transition

None

5.2 National Qualifications Framework transition

This is the first version of this qualification.