

**National Vocational Certificate in Electrical Engineering (Instrumentation and Control)  
(Level 4)**

**NQF Level of qualification: 4**

**Total credits available: 71**

**Total credits required: 71**

	<b>Compulsory</b>	<b>Elective</b>
<b>Level 4 credits available</b>	<b>71</b>	-
<b>Minimum totals required</b>	<b>71</b>	-

**Registration date:** 13 June 2019

**Scheduled review date:** 2024

**Body responsible for the qualification:** Namibia Training Authority 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 of instrumentation and control. It is awarded to people who have demonstrated the skills and knowledge required to apply knowledge of analytical instruments, install and maintain safety systems and security devices, carry out administration activities, apply knowledge of process valves and actuators, wire a panel, demonstrate and apply knowledge of signal conditioners, apply knowledge of distributed control systems, perform equipment operation test.

They further have a good understanding of knowledge of establishing a business as part of entrepreneurship operations, implement, control and monitor business operations, apply knowledge of intermediate mathematics in different context, apply advanced knowledge of engineering science and engineering drawing in different contexts.

The entry requirement for this qualification is a National Vocational Certificate in Electrical Engineering (Instrumentation and Control) (Level 3), 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 (Instrumentation and Control) (Level 5).

## **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 **71** credits and have met the requirements of both the compulsory sections, as well as all requirements for Workplace Integrated Learning (WIL) as laid out in the National Policy On Work-

Integrated Learning (WIL) for Technical and Vocational Education and Training (TVET) Sector.

## 2.2 Detailed qualification requirements

### Compulsory

*All the unit standards listed below are required.*

**FIELD:** Manufacturing, Engineering and Technology

**Subfield:** Electrical Engineering

**Domain:** Instrumentation and Control

Unit No.	Unit Standard Title	Level	Credit
2060	Apply knowledge of analytical instruments	4	7
2061	Install and maintain safety systems and security devices	4	11
2062	Carry out administration activities	4	4
2063	Apply knowledge of process valves and actuators	4	9
2064	Wire a panel	4	9
2065	Apply knowledge of Distributed Control Systems	4	8
2066	Apply knowledge of Signal Conditioners	4	5

### AND

**FIELD:** Physical, Mathematical and Computer Sciences

**Subfield:** Numeracy

**Domain:** Foundation Numeracy Skills

Unit ID	Unit Standard Title	Level	Credits
892	Apply knowledge of intermediate mathematics in different context	4	6

### AND

**FIELD:** Manufacturing, Engineering and Technology

**Subfield:** Foundational Engineering Science and engineering drawing

**Domain:** Foundational Engineering Science and Drawing Skills

Unit ID	Unit Standard Title	Level	Credits
896	Apply advanced knowledge of engineering science in different contexts	4	6
902	Apply knowledge of advanced engineering drawing in different contexts	4	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 6 months period 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 encouraged 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.