

Unit ID: I&C010

Domain

Control and Instrumentation

Title:

Demonstrate knowledge of Temperature Measurement

Level: 2

Credits: 2

Purpose

This unit standard specifies the competencies required to demonstrate knowledge of Temperature Measurement. This unit standard is intended for those who work in instrumentation industry.

Special Notes

1. Entry information:

Prerequisite

- none

2. Assessment evidence may be collected from a real workplace or a simulated workplace in which Instrumentation operations are carried out.

3. The evidence required to demonstrate competency in this unit must be relevant to workplace operations.

4. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' specifications and/or company's guidelines and instructions.

4. Glossary of terms:

- '*Specifications*' refers to any, or all of the following: manufacturers' specifications and recommendations, workplace specific requirements.

5. Regulations and legislation relevant to this unit standard include the following:

- Labour Act 2007, No. 11, 2007
- NOSA
- The Social Security Act 1994
- The Employee Compensation Amendment Act 5 of 1995
- Occupational Health and Safety Regulations No. 18, 1997 and all subsequent amendments.
- Occupational Health and safety regulation No. 162, 1992

6. Performance of all elements in this unit standard must comply with industry standards.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training

Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Demonstrate knowledge of Temperature Measurement devices

Range

Types of temperature measuring devices and calibration instruments include thermocouples, RTD, filled thermal systems, multimeters, temperature baths, dry block calibrators and infrared thermometers and pyrometers

Temperature scales include Kelvin, Fahrenheit and Celsius

Performance Criteria

- 1.1 Knowledge of temperature measurement theory is explained in terms of operating principles of equipment, scale and units used and conversion of units
- 1.2 Personal and plant safety precautions are described in accordance with establishment procedures
- 1.3 Types temperature measurement devices and gauges are described in terms of their operation, characteristics and calibrations
- 1.2 Calculations related to temperature measurements are performed and SI units used are converted by calculation and tables.
- 1.4 Characteristics of the various temperature measuring techniques described.
- 1.5 Advantages and disadvantages of the various temperature measuring techniques is described in terms of operating principles.
- 1.6 Temperature measurement methods are described in accordance with standard practice.
- 1.9 Calibration procedures are described with reference to calibration principles and manufacturer's instructions.
- 1.10 Methods of temperature measurement devices installation are described.

Registration Data

Subfield:	Electrical Engineering
Date first registered:	

Date this version registered:	
Anticipated review:	
Body responsible for review:	Namibia Training Authority