

		Unit ID:2392
Domain	FREIGHT OPERATIONS	
Title:	Calculate mass, area and quantify dimensions	
Level:4	Credits: 6	

Purpose

This unit standard is intended for those who calculate mass, area and quantify dimensions. People credited with this unit standard are able to measure and calculate physical quantities and understand and interpreting of geometrical relationships of shapes.

This unit standard is intended for those who work in the freight operations industry.

Special Notes

1. Entry information:
Prerequisite:
 - *None*
2. Assessment evidence may be collected from a real or a simulated workplace or in which postal operations are carried out.
3. This unit standard is to be delivered and assessed in the context of transport and logistics operations and should be assessed in conjunction with other relevant technical unit standards selected from this domain.
4. To demonstrate competence, minimum evidence of the ability to measure and calculate physical quantities, and understand and interpret the geometrical relationships of shapes.
5. Regulations and legislation relevant to this unit standard include the following:
 - Trade Metrology Act, Act No. 77 of 1973 as amended
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: Measure and calculate physical quantities

Range

Measuring instruments may include but not limited to those readily available such as rulers, measuring tapes, measuring cylinders or jugs, thermometers, spring or kitchen balances, watches and clocks.

Quantities to be estimated or measured may include length/distance, area, mass, time, speed acceleration and temperature.

Smallest calibration unit may include but are not limited to kilometre, meter, centimetre, millimetre, ton, kilogram, milligram, kilolitre, litre and millilitre.

Performance Criteria

- 1.1 Scales on the measuring instruments are interpreted.
- 1.2 Quantities are estimated to a tolerance justified in the context of the need.
- 1.3 The appropriate instrument is selected to measure a specific quantity.
- 1.4 Quantities are measured correctly within the smallest calibration unit of the instrument.
- 1.5 Calculations are carried out correctly and the least steps of instruments used are taken into account when reporting final values.
- 1.6 Symbols and units are used in accordance with International System of Units (SI) conventions and as appropriate to the situation.

Element 2: Interpret geometrical relationships of shapes

Range

Drawings and diagrams may include but not limited to plans of houses, warehouses or factories; technical diagrams of storage equipment or work related devices.

Maps may include but not limited to road maps and world maps.

Performance Criteria

- 2.1 The properties of the shapes are explained based on a systematic analysis of the shapes.
- 2.2 Three-dimensional objects relevant to the logistics and transport industry are represented and integrated to describe a 3-dimensional objects.
- 2.3 Relations of distance and positions between objects are analysed from different views as appropriate to the situation and are based on well-planned investigations of geometrical properties.

- 2.4 Scaled maps, plans and diagrams are interpreted and used according to the job requirements.
- 2.6 Cartesian co-ordinate system interpreted and used in determining location and describing relationships of dimensions.

Registration Data

Subfield:	Transport, Operations and Logistics
Date first registered:	07 October 2020
Date this version registered:	07 October 2020
Anticipated review:	2025
Body responsible for review:	Namibia Training Authority