

Domain	METALLURGICAL PROCESSING - CORE	Unit ID: 1471
Title:	Carry out basic workplace calculations	
Level: 2		Credits: 4

Purpose

This unit standard is intended for those who carry out metallurgical processing operations. People holding credit for this unit standard are able to: Perform calculations related to processing operations; use area, volume, and mass calculations related to processing operations; and estimate approximate quantities related to processing operations.

Special Notes

1. Entry information:

Prerequisite

- 1449 - *Comply with health, safety and environmental rules and regulations pertaining to processing operations*; or demonstrated equivalent knowledge and skills.

2. Assessment evidence may be collected from a real workplace or a simulated workplace in which processing operations are carried out.
3. This unit standard should be assessed in conjunction with other relevant technical unit standards selected from the metallurgical processing, mineral processing, hydrometallurgy, or pyrometallurgy domain.
4. Regulations and legislation, including subsequent amendments, relevant to this unit standard may include but are not limited to the following:
 - Labour Act, No. 11, 2007
 - Mineral Act, No. 33, 1992
 - Mine Health and Safety Regulations, 1999
 - Regulations relating to the Health and Safety of employees at work, 1997 and all industry specific regulations, legislations, code of practice, or code of conduct.

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. All approved unit standards, qualifications and national assessment arrangements are available on the Namibia Training Authority website www.nta.com.na.

Elements and Performance Criteria

Element 1: Perform calculations related to processing operations

Performance Criteria

- 1.1 Calculations with fractions, decimals, and percentage are applied.
- 1.2 Calculations with ratios and gradients are applied.
- 1.3 Methods of calculations related to speed, distance, time, flow rate and volume are applied.
- 1.4 Results are confirmed and recorded according to workplace procedures and job requirements.

Element 2: Use area, volume, and mass calculations related to processing operations

Range

Common objects may include but are not limited to areas of squares, rectangles, triangles, circles, and volumes of tanks and stockpiles.

Performance Criteria

- 2.1 The area of common objects found in processing operations is calculated.
- 2.2 The volume of common objects found in processing operations is calculated.
- 2.3 The mass of objects and materials found in processing operations is calculated.
- 2.4 Results are confirmed and recorded according to workplace procedures and job requirements.

Element 3: Estimate approximate quantities related to processing operations

Performance Criteria

- 3.1 Calculations for determining material requirements are applied.
- 3.2 Quantities are estimated from the calculations applied.
- 3.3 Material quantities are calculated within accepted tolerances, confirmed and recorded according to workplace procedures and job requirements.

Registration Data

Subfield:	Metallurgy
Date first registered:	28 September 2016
Date this version registered:	28 September 2016
Anticipated review:	2021
Body responsible for review:	Namibia Training Authority