

Further Education & Training Certificate: Mineral Processing NQF Level 4

Introduction: This qualification is intended to address the training needs for metallurgical process controllers. This competence provides the skills needed to supervise and coordinate significant processes within metallurgical operations. It also provides the basis upon which further related learning and career development can take place.

Descriptions: Through the employment of competent operating personnel, employers and in turn the field and sub-field have confidence that this critical work in the industry is efficiently carried out.

Social development and economic transformation are enhanced through efficient extraction, and career development and personal job satisfaction of operating personnel are facilitated through the learning process used to achieve the competency specified.

Learners credited with this qualification will be able to:

- Communicate and solve problems in Mineral Processing.
- Maintain Occupational Health, Safety and general housekeeping.
- Lead a team to work co-operatively to achieve objectives.
- Control metallurgical operations from a control room.

SAQA Qualification ID: 64889

Target group: Existing employees at NQF Level 3 identified for promotion and or development.	Certification: The qualification is composed of Fundamental, Core and Elective learning components:	Duration: 27 Weeks
Entry Level Requirements: <ul style="list-style-type: none"> ▪ Mathematical and Communication Literacy NQF Level 3 ▪ National Certificate: Mineral Processing NQF Level 3 	<ul style="list-style-type: none"> ▪ Fundamental: 56 credits (compulsory) ▪ Core: 37 credits (compulsory) ▪ Elective: A minimum of 44 elective credits is required for this qualification. <p>If competent a competence certificate will be issued by MQA</p>	

QUALIFICATION OUTLINE

	Unit standard ID	UNIT STANDARD TITLE	Credits	Duration:
Core	8016	Maintaining occupational health, safety and general housekeeping	8	27 Weeks
Core	117877	Perform one-to-one training on the job	4	
Core	242810	Manage Expenditure against a budget	6	
Core	261017	Monitor and control a metallurgical plant from a control room	15	
Core	244105	Participate in a task team in a process environment	4	
Fundamental	119472	Accommodate audience and context needs in oral/signed communication	5	
Fundamental	119457	Interpret and use information from texts	5	
Fundamental	119467	Use language and communication in occupational learning programmes	5	
Fundamental	119465	Write/present/sign texts for a range of communicative contexts	5	
Fundamental	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	6	
Fundamental	119462	Engage in sustained oral/signed communication and evaluate spoken/signed texts	5	

Fundamental	119469	Read/view, analyse and respond to a variety of texts	5	
Fundamental	9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	4	
Fundamental	119471	Use language and communication in occupational learning programmes	5	
Fundamental	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	6	
Fundamental	119459	Write/present/sign for a wide range of contexts	5	
Elective	260998	Administer first aid in the event of cyanide poisoning	3	
Elective	261137	Control a resin adsorption process in a metallurgical plant	15	
Elective	261003	Control the Biological Oxidation (Biox) Process	15	
Elective	260989	Control the carbon adsorption process in a metallurgical plant	15	
Elective	260980	Control the crushing and screening operation in a metallurgical plant	15	
Elective	261011	Control the de-watering process in a metallurgical plant	15	
Elective	261010	Control the dense medium separation process in a metallurgical plant.	15	
Elective	260978	Control the drying operation in a metallurgical plant	15	
Elective	261013	Control the elution process in a metallurgical plant	15	
Elective	260988	Control the froth flotation process in a metallurgical plant	15	
Elective	260983	Control the gravity concentration process in a metallurgical plant	15	
Elective	260985	Control the jig operation process in a metallurgical plant	15	
Elective	260999	Control the lump ore beneficiation process	15	
Elective	260986	Control the milling and classification operation in a metallurgical plant	15	
Elective	261002	Control the operation of an electric arc furnace	15	
Elective	261118	Control the process of uranium recovery from solution in a metallurgical plant	15	
Elective	260987	Control the thickening process in a metallurgical plant	15	
Elective	120389	Explain and apply the concept, principles and theories of motivation in a leadership context	6	
Elective	261117	Generate steam by means of a coal-burning boiler	15	
Elective	261012	Oversee the leaching operation in a metallurgical plant	15	
			Duration	27 Weeks