



UNDERGROUND MINING

Further Education and Training Certificate: Mining Operations

SAQA: 74490
NQF: 4
Duration: 12 Months

Accrediting SETA: MQA
Credits: 160
RPL: Yes

Purpose

The Production Supervisor plays a critical role in the mining industry. Mining activities are often conducted under dangerous and difficult conditions, which have to be managed appropriately in order to preserve the lives of those working in the industry, and ensure operational efficiency. While the title "supervisor" implies to specific competencies, these competencies are applied in conjunction with technical and operational competencies. The Production Supervisor must adapt continually to changing physical conditions in his or her area of responsibility e.g. geology and blast damage. He/she is accountable for the occupational health and safety of the team, as well as for achieving production targets.

Entry Criteria

- Communications and Mathematical Literacy - NQF Level 3
- First Aid Certificate – NQF level 3

Qualification Rules:

This qualification is made up of fundamental, core and elective unit standards and a minimum of 126 credits is required to complete the qualification:

Fundamental:

- All 56 credits must be achieved with 2 languages at NQF level 3 and 4

Core:

- All 54 credits must be achieved

Elective:

- The elective component consists of 2 specialisation areas:
 - Underground hard rock mining (Conventional and mechanized)
 - Underground coal mining
- Learners are to choose a specialisation area and then complete Unit Standards listed for that specialisation totalling a minimum of 50 Credits.

Exit Level Outcomes:

- Communicate and solve problems by applying mathematical practical applications in a variety of ways.
- Adhere to occupational health, safety and environmental requirements in the workplace.
- Supervise the extraction of minerals to meet production targets; taking into account the Occupational Health, Safety, Quality and Environmental requirements.
- Conduct mining operations in conjunction with technical services department to optimize the mining process.

Core Unit Standards

SAQA ID	UNIT STANDARD TITLE	CREDITS
120335	Conduct an investigation into workplace incidents	5
120331	Demonstrate knowledge pertaining to fires in working places	3
336945	Conduct an issue-based risk assessment within a workplace	3
336919	Demonstrate an understanding of continual improvement in the mining cycle	4
336908	Demonstrate an understanding of essential basic engineering principles that are applicable to the mining environment	4
336959	Demonstrate an understanding of labour supervision and production procedures for supervisors in the workplace	7
336943	Demonstrate an understanding of mining related strata control issues impacting on mining practice	8
336940	Demonstrate an understanding of strata control theory and terminology relevant to mining environment	8
336904	Demonstrate knowledge of basic mining economics	4
336910	Demonstrate knowledge of environmental awareness in the mining industry	3
336899	Demonstrate knowledge of legislation impacting on mining environment	5

Fundamental Unit Standards

SAQA ID	UNIT STANDARD TITLE	CREDITS
119472	Accommodate audience and context needs in oral/signed communication	5
119457	Interpret and use information from texts	5
119467	Use language and communication in occupational learning programmes	5
119465	Write/present/sign texts for a range of communicative contexts	5
9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	6
119462	Engage in sustained oral/signed communication and evaluate spoken/signed texts	5
119469	Read/view, analyse and respond to a variety of texts	5
9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	4
119471	Use language and communication in occupational learning programmes	5
7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	6
119459	Write/present/sign for a wide range of contexts	5

Underground Hard Rock Mining Elective Unit Standards

SAQA ID	UNIT STANDARD TITLE	CREDITS
336907	Demonstrate an understanding of development, pre-ledging equipping, ledging, equipping and stoping processes	8
336980	Apply a computerized management system in a production mining environment	4
336911	Demonstrate an understanding of mine geology	4
336964	Demonstrate an understanding of roles and responsibilities of a production supervisor in a mining environment	8
336900	Demonstrate an understanding of strata control practice in an underground hard rock mine	8
336915	Demonstrate knowledge and understanding of mineral valuation	4
336912	Demonstrate knowledge and understanding of short term mine planning	8
336902	Demonstrate knowledge and understanding of the starting up and closing off procedures for an underground workplace	5
336905	Demonstrate knowledge and understanding of underground horizontal transport operation	4

Underground Coal Mining Elective Unit Standards

SAQA ID	UNIT STANDARD TITLE	CREDITS
110125	Control operations in a blasting section in an underground coal mine	15
115600	Demonstrate the co-ordination of a conveyor system operations in an underground coal mine	4
253016	Read and understand a mine plan and transfer recorded information onto mine plans	4
336962	Conduct over and underground coal mine inspection in a production section	6
115608	Demonstrate an understanding of ventilation systems in an underground coal mine	10
336981	Demonstrate an understanding to control strata conditions in an underground coal mine	4
337039	Coordinate transportation operations in an underground coal mine	5
336979	Control stonework operations in an underground coal mine	4
336944	Coordinate loading operations in an underground coal mine	5