



SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with regulation 24(c) of the Standard Generating Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Manufacturing, Engineering and Technology

publishes the following unit standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the qualification and unit standards. The qualification and unit standards can be accessed via the SAQA web site at www.saga.org.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, Hatfield Forum West, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the unit standards should reach SAQA at the address ***below and no later than 15 Aug 2005***. All correspondence should be marked **Standards Setting – SGB Food Manufacturing** and addressed to

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SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION:

National Certificate: First Line Manufacturing Management

SAQA QUAL ID		QUALIFICATION TITLE	
49743		National Certificate: First Line Manufacturing Management	
SGB NAME		NSB 06	PROVIDER NAME
SGB Food Manufacturing		Manufacturing, Engineering and Technology	
QUAL TYPE		FIELD	SUBFIELD
National Certificate		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUALIFICATION CLASS
Undefined	125	Level 5	Regular-Unit Stds Based

PURPOSE AND RATIONALE OF THE QUALIFICATION

Purpose

A person acquiring this qualification will be able to plan work processes to ensure that (a) production line(s) operate effectively within the performance requirements of the manufacturing unit, lead people within a production environment to ensure organisational objectives are achieved, maintain health, safety and quality control standards, organise, control and continuously improve a production process in the South African manufacturing context to enable the unit and the organisation to remain competitive in the global market place.

The skills, knowledge and understanding demonstrated within this qualification are essential for the creation of an experienced production and effective first line managers that represents the demographics of the South African society.

This qualification will create a leadership cadre for the manufacturing industry that will be able to apply in the workplace the skills and knowledge acquired.

Rationale

This qualification reflects the needs of the Manufacturing Industry for an individual with first line management skills and with a sound knowledge base and experience in production and manufacturing. A generic first line management qualification does not address the specific needs for manufacturing with regards to management of materials, problem-solving in a manufacturing context and integration and coordination of multiple activities to optimise a production process.

The learners will typically be first line manufacturing managers with an automated production process. The Manufacturing industry has identified the need to develop first line manufacturing management skills to enable organisations to implement integrated systems and management processes. Learners will become internationally competitive and learners could specialise within this qualification in a contextualised manufacturing area.

The qualification ensures that the levels of skills in the South African Manufacturing environment are enhanced and that learners completing this qualification will be able to manage a production line at a standard comparable with the rest of the world. The qualification, although developed specifically for the food and beverage industry also provides the flexibility to articulate with other manufacturing environments such as fast moving consumable products, pharmaceutical, chemical, motor assembly, wood milling and a packaging.

The level of flexibility within the range of electives will allow the individual to pursue some further specialization within human resources management, training and development, general management, senior manufacturing management or packaging technology development.

RECOGNIZE PREVIOUS LEARNING?

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LEARNING ASSUMED TO BE IN PLACE

This qualification assumes that learners have manufacturing skill and knowledge at NQF level 4 or equivalent and have had experience in managing or supervising individuals or team activities. It is further assumed that learners have knowledge, comprehension and application of language, mathematical literacy at NQF 4 or equivalent as well as an understanding and application of the relevant legislation of health, safety quality assurance practices and procedures in a manufacturing or production environment.

Recognition of prior learning

This qualification may be achieved in part or completely through the recognition of prior learning, which includes formal, informal and non-formal learning and work experience.

QUALIFICATION RULES

Rules of combination

The Fundamental Component of the qualification is compulsory and a learner must demonstrate his/her competence in all the unit standards (total 25 credits) within the fields of communication, business and finance, manufacturing operations and self-management.

The unit standards in the Core Component of the qualification are compulsory and reflect the skills and competencies needed for transportability in manufacturing, operations and people management are necessary. In the Core Component, the learner must demonstrate his/her competence in the total of 63 credits.

The Elective Component of the qualification enables the learner to pursue specialisation areas such as (a) food and beverage, (b) education training and development, (c) project, quality and management, or any manufacturing related specialisation which are all directly related to the core of the qualification. The learner needs to choose a minimum of 15 credits at level 5 from any of the specialization areas and additional electives of 22 credits at level 4.

Learning components: Number of credits allocated

□

Fundamental: 25

Core: 63

Elective: 37

Total: Min 125

EXIT LEVEL OUTCOMES

1. Plan work processes to ensure that production lines operate effectively within the operational requirements of the manufacturing unit.
2. Lead people within a production environment to ensure organisational objectives are achieved.
3. Maintain health, safety, quality control and environmental standards during the production process.
4. Organise, control and improve a production process continuously to ensure global competitiveness.

ASSOCIATED ASSESSMENT CRITERIA

1.
 - > Relevant policies, procedures and legislation are used as guidelines to the formulation of all plans
 - > All plans are developed in accordance with the integrated activities of the organisation's supply chain.
 - > Operational budgets are developed for a production process.
 - > Material resource plans are developed for a production process.
 - > Human resource plans are developed for a production process.
 - > Operational and production plans linked to standard operating procedures and the manufacturing strategy of the organisation, are developed for production process.

2.

- > A common vision for a new or established team is developed or enhanced reflecting the organisation's culture and committed to the achievement of defined organisational objectives within the production process.
- > Leadership styles are selected that best contribute to the commitment of the team members and portrays the organisation ethics, values and culture.
- > High levels of trust is developed and maintained through the creation of a culture of honesty and integrity
- > Individuals and team performance is measured against all plans developed for the production process, variances are highlighted and feedback given, corrective actions applied where necessary.

3.

- > Personal, environment and product safety are maintained during the manufacturing of the product.
- > Ensure good manufacturing practices are applied during the production process.
- > Verify conformity to quality parameters during the production process.
- > Process tools and equipment are effectively organised to minimise waste.

4.

- > Standards and controls related to work processes are managed within the production process.
- > Variance between forecasts and plans and the outcome of the work processes is recorded, analysed and reported
- > Process, product and quality deviations are identified and feedback and corrective actions implemented.
- > Suggestions for improvement are fostered, discussed, debated, collated and distributed through the organisation according to the specific communication channels of the organisation.
- > Implement new ideas and improvements as approved by the organisation.

Integrated Assessment

Integrated assessment at the level of the qualification provides an opportunity for learners to show they are able to integrate concepts, actions and ideas achieved across a range of unit standards and contexts.

Integrated assessment must evaluate the quality of observable performance as well as the thinking behind the performance, and must be based on a summative assessment guide. The guide will spell out how the assessor will assess different aspects of the performance and will include:

- > Observing the learner at work (both in the primary activity as well as other interactions)
- > Asking questions and initiating short discussions to test understanding
- > Looking at records and reports in the portfolio and reviewing previous assessments

In some cases inference will be necessary to determine competence depending on the nature and context within which performance takes place.

It is necessary to ensure that the fundamental part of the qualification is also targeted to ensure that while the competence may have been achieved in a particular context, learners are able to apply it in a range of other contexts and for further learning. The assessment should also ensure that all the critical cross-field outcomes have been achieved.

The learner may choose in which language s/he wants to be assessed. This should be established as part of a process of preparing the learner for assessment and familiarising the learner with the approach being taken.

While this is primarily a workplace-based qualification, evidence from other areas of endeavour may be introduced if pertinent to any of the exit-level outcomes. The assessment process should cover both the explicit tasks required for the qualification as well as the understanding of the concepts and principles that underpin the activities associated with the first line manufacturing management process.

INTERNATIONAL COMPARABILITY

This qualification was compared to other similar outcomes-based qualifications of Australia and New Zealand, in particular the National Certificate in Firstline Management (Level 4) in New Zealand and the Diploma in Business (Firstline Management) (Level 5) in Australia. In both of the above cases the fundamental learning is not specified but there are considerable similarities in the competencies outlined.

ARTICULATION OPTIONS

This qualification will enable the qualifying candidate to progress to learning for other national management diplomas on NQF 5 and national first degrees in management on NQF 6. This qualification provides entry to qualifications in manufacturing management, quality control and assurance, business management, production management and process artisan.

MODERATION OPTIONS

- > Anyone assessing a learner or moderating the assessment of a learner against this Qualification must be registered as an assessor with the relevant ETQA.
- > Any institution offering learning that will enable the achievement of this Qualification must be accredited as a provider with the relevant ETQA.
- > Assessment and moderation of assessment will be overseen by the relevant ETQA according to the ETQAs policies and guidelines for assessment and moderation; in terms of agreements reached around assessment and moderation between ETQAs (including professional bodies); and in terms of the moderation guideline detailed immediately below.
- > Moderation must include both internal and external moderation of assessments at the exit points of the qualification, unless ETQA policies specify otherwise. Moderation should also encompass achievement of the competence at the exit level as the integrated competence described in the qualification.

Anyone wishing to be assessed against this Qualification may apply to be assessed by any assessment agency, assessor or provider institution that is accredited by the relevant ETQA.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

For an applicant to register as an assessor, the applicant needs:

- > Well-developed interpersonal skills, subject matter and assessment experience.
- > The assessor needs to be competent in the planning and conducting assessment of learning outcomes as described in the unit standards Plan and conduct assessment of learning outcomes NQF level 5. The subject matter experience must be well developed with in the field of manufacturing management.
- > A national first degree in food or beverage manufacturing management on NQF level 7 and 6 months field experience.
- > The subject matter experience of the assessor can be established by recognition of prior learning.
- > Assessors need to be registered with the relevant Sector Education and Training Quality Assurance Body.
- > Detailed documentary proof of educational qualification, practical training undergone, and experience gained by the applicant must be provided (Portfolio of evidence).

NOTES

This qualification replaces 21813, "National Certificate: First Line Manufacturing Management: Food and Beverage", Level 5, 120 credits.

UNIT STANDARDS

(Note: A blank space after this line means that the qualification is not based on Unit Standards.)

	UNIT STANDARD ID AND TITLE	LEVEL	CREDITS	STATUS
Core	11473 Manage individual and team performance	Level 4	8	Registered
Core	13947 Motivate a team	Level 4	6	Registered
Core	13952 Demonstrate basic understanding of the Primary labour legislation that impacts on a business unit	Level 4	8	Registered
Core	13953 Apply the principles of situational leadership to a business unit	Level 4	5	Registered
Core	9893 Maintain production efficiencies	Level 5	12	Registered
Core	9894 Optimise the production process	Level 5	24	Registered
Elective	7997 Managing self-development	Level 4	12	Reregistered
Elective	10134 Participate in the estimation and preparation of cost budgets for an element of work and monitor and control actual cost against budget	Level 4	6	Reregistered
Elective	10144 Identify, suggest and implement corrective actions to improve quality	Level 4	6	Reregistered
Elective	14357 Demonstrate an understanding of a selected business environment	Level 4	10	Registered
Elective	116280 Demonstrate understanding of warehouse manufacturing and inventory assembly	Level 4	20	Registered
Elective	10148 Supervise a project team of a business project to deliver project objectives	Level 5	14	Reregistered
Elective	11286 Institute disciplinary action	Level 5	8	Registered
Elective	15217 Develop an organisational training and development plan	Level 5	6	Registered
Elective	115753 Conduct outcomes-based assessment	Level 5	15	Registered
Elective	117874 Guide learners about their learning, assessment and recognition opportunities	Level 5	6	Registered
Elective	119797 Conduct audits within a quality management system	Level 5	8	Draft - Prep for P Comment

Elective	119799	Provide information on scientific, technical and quality standards for food or sensitive consumer products	Level 5	7	Draft - Prep for P Comment
Elective	119800	Optimise product and process quality in a food or sensitive consumer product environment	Level 5	8	Draft - Prep for P Comment
Elective	119801	Demonstrate an understanding of microbiological principles and its application in a food handling environment.	Level 5	12	Draft - Prep for P Comment
Elective	15218	Conduct an analysis to determine outcomes of learning for skills development and other purposes	Level 6	4	Registered
Fundamental	10622	Conduct communication within a business environment	Level 5	8	Reregistered
Fundamental	10631	Demonstrate an understanding of manufacturing, principles, methodologies and processes	Level 5	7	Reregistered
Fundamental	12999	Contribute to the management of costs and the enhancement of value	Level 5	10	Registered



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UNIT STANDARD:

1

Monitor and control quality assurance procedures in a food or sensitive consumer product environment

SAQA US ID	UNIT STANDARD TITLE		
119796	Monitor and control quality assurance procedures in a food or sensitive consumer product environment		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Food Manufacturing	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 4	Regular

SPECIFIC OUTCOME 1

Demonstrate an understanding of a quality assurance system for a food or sensitive consumer product environment.

SPECIFIC OUTCOME 2

Monitor and control quality assurance procedures within a food or sensitive consumer product environment.

SPECIFIC OUTCOME 3

Implement a quality assurance procedure in a food or sensitive consumer product environment.



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UNIT STANDARD:

2

Conduct audits within a quality management system

SAQA US ID	UNIT STANDARD TITLE		
119797	Conduct audits within a quality management system		
SGB NAME		NSB 06	PROVIDER NAME
SGB Food Manufacturing		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 5	Regular

SPECIFIC OUTCOME 1

Demonstrate an understanding of auditing principles relating to a quality management system within a food or sensitive consumer product environment.

SPECIFIC OUTCOME 2

Plan for and perform an audit within a quality management system for a food or sensitive consumer product environment.

SPECIFIC OUTCOME 3

Evaluate and report on the findings of the audit within a quality management system for a food or sensitive consumer product environment.



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UNIT STANDARD:

3

Optimise a quality management system in a food or sensitive consumer product value chain

SAQA US ID	UNIT STANDARD TITLE		
119798	Optimise a quality management system in a food or sensitive consumer product value chain		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Food Manufacturing	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	12	Level 6	Regular

SPECIFIC OUTCOME 1

Demonstrate an understanding of the quality management system in a food or sensitive consumer product value chain.

SPECIFIC OUTCOME 2

Assess and analyse the quality management system in a food or sensitive consumer product value chain.

SPECIFIC OUTCOME 3

Identify and validate areas for improvement to the quality management system in a food or sensitive consumer product value chain.

SPECIFIC OUTCOME 4

Implement and sustain improvements to the quality management system in a food or sensitive consumer product value chain.



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UNIT STANDARD:

4

Provide information on scientific, technical and quality standards for food or sensitive consumer products

SAQA US ID	UNIT STANDARD TITLE		
119799	Provide information on scientific, technical and quality standards for food or sensitive consumer products		
SGB NAME		NSB 06	PROVIDER NAME
SGB Food Manufacturing		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	7	Level 5	Regular

SPECIFIC OUTCOME 1

Demonstrate an understanding of scientific, technical and quality standards for food or sensitive consumer products.

SPECIFIC OUTCOME 2

Provide information on standards and specifications for food or sensitive consumer products.

SPECIFIC OUTCOME 3

Write production, quality and technical reports.



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UNIT STANDARD:

5

Optimise product and process quality in a food or sensitive consumer product environment

SAQA US ID	UNIT STANDARD TITLE		
119800	Optimise product and process quality in a food or sensitive consumer product environment		
SGB NAME		NSB 06	PROVIDER NAME
SGB Food Manufacturing		Manufacturing, Engineering and Technology	
UNIT STANDARD TYPE		FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Manufacturing, Engineering and Technology	Manufacturing and Assembly
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 5	Regular

SPECIFIC OUTCOME 1

Demonstrate an understanding of the relevant quality management system.

SPECIFIC OUTCOME 2

Monitor the quality in a food or sensitive consumer product environment.

SPECIFIC OUTCOME 3

Control the quality in a food or sensitive consumer product environment.

SPECIFIC OUTCOME 4

Implement quality improvements in a food or sensitive consumer product environment.



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UNIT STANDARD:

6

Demonstrate an understanding of microbiological principles and its application in a food handling environment.

SAQA US ID	UNIT STANDARD TITLE		
119801	Demonstrate an understanding of microbiological principles and its application in a food handling environment.		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Food Manufacturing	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	12	Level 5	Regular

SPECIFIC OUTCOME 1

Demonstrate an understanding of the occurrence of micro-organisms in a food handling environment.

SPECIFIC OUTCOME 2

Demonstrate an understanding of the preventative methods and procedures for microbial growth in a food handling environment.

SPECIFIC OUTCOME 3

Demonstrate an understanding of determining the microbiological status in food products or in a food handling environment.



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UNIT STANDARD:

7

Perform quality control practices in a food or sensitive consumer product operation

SAQA US ID	UNIT STANDARD TITLE		
119802	Perform quality control practices in a food or sensitive consumer product operation		
SGB NAME	NSB 06	PROVIDER NAME	
SGB Food Manufacturing	Manufacturing, Engineering and Technology		
UNIT STANDARD TYPE	FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	6	Level 3	Regular

SPECIFIC OUTCOME 1

Demonstrate an understanding of the relevant quality control and quality assurance system for a food or sensitive consumer product operation.

SPECIFIC OUTCOME 2

Measure and record quality control practices in a food or sensitive consumer product operation.

SPECIFIC OUTCOME 3

Report on quality in a food or sensitive consumer product operation.