

GOVERNMENT NOTICES

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

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SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

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

TRANSPORT AND LOGISTICS OPERATIONS

registered by Organising Field 11 - Services, publishes the following Qualification for public comment.

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

Comment on the Qualification should reach SAQA at the address below and **no later than 16 August 2010**. All correspondence should be marked **Standards Setting – SGB for Transport and Logistics Operations** and addressed to

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ACTING DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION: **National Certificate: Maintenance Coordination**

SAQA QUAL ID	QUALIFICATION TITLE		
79406	National Certificate: Maintenance Coordination		
ORIGINATOR		PROVIDER	
SGB Transport and Logistics Operations			
QUALIFICATION TYPE	FIELD	SUBFIELD	
National Certificate	11 - Services	Transport, Operations and Logistics	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS
Undefined	160	Level 5	Regular-Unit Stds Based

NQF Level: NQF Level 05

This qualification replaces:

Qual ID	Qualification Title	NQF Level	Min Credits	Replacement Status
50245	National Certificate: Maintenance Coordination	Level 5	160	Will occur as soon as 79406 is registered

PURPOSE AND RATIONALE OF THE QUALIFICATION

Purpose:

The Qualification will contribute to increasing levels of efficiency and effectiveness and will develop a common integrated and co-ordinated approach to managing the maintenance function within an organisation or across a range of industries. It provides learners with a formal Qualification that allows for recognition, further mobility and portability. A person acquiring this Qualification will be able to apply managerial principles within the technical field of operations relating to the maintenance function of the respective organisation.

More specifically this Qualification will provide learners with a solid grounding in managing the maintenance function within a variety of industries. It will enable them to understand the concepts relating to maintenance, such as preventative maintenance; corrective maintenance; total productive maintenance and improved-designed maintenance. It also addresses the different levels of maintenance and the concepts of failure, mode, effects and critic ability analysis (FMECA).

This Qualification has a large number of competencies, which are rooted in actual workplace practice and should lead to improved on-the-job performance by the learner, due to the integration of the knowledge mastered with workplace application.

This learning supports many of the objectives of the NQF, and therefore by concentrating on the link between theory and practice, the quality of education, training and development as well as the personal development of the learner will be elevated.

Rationale:

The concept of maintenance is one of the oldest known to people. No other function in modern industry covers as wide a range of disciplines and industries as that of maintenance. A properly

managed maintenance function creates and sustains high levels of availability, reliability and operability of organisations. These high levels translate directly into production capacity, productive output and thus organisational profit.

The function of maintenance abounds with problems such as: Materials control; purchasing; warranty control, quality control; personnel; finances; scheduling; design; project work; maintaining safety standards; creating environmental awareness; and the Operations of the failure process. These problems highlighted a skills gap that existed in maintenance Operations.

A National Certificate: Maintenance Management, NQF Level 5 was developed to fill the Operations skills gap that spans the entire spectrum of various disciplines and industries, from road and building construction, transport industry, all engineering organisations and facilities Operations. It will expose learners to the world of technological advancement, thereby increasing global competitiveness for the country, organisation and the learner within the maintenance Operations environment.

The Certificate will provide opportunities for individuals presently employed within organisations as maintenance Operations personnel, to obtain a formally recognised Qualification within their field of work. This will be possible because maintenance is required within all aspects of industry and has always been recognised as a secondary task by employers.

The Certificate will also provide entry to new learners who wish to embark on a Qualification within the maintenance field as a career path leading on from their technical background into one of Junior Management.

The Qualification recognises the fact that both knowledge of and the application of managing the maintenance within an organisation is a business imperative, necessary for the success of the organisation, both strategically and operationally. This Certificate is thus designed to enable individuals to develop the theoretical competencies and the practical skills to operate effectively in this field.

RECOGNIZE PREVIOUS LEARNING?

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LEARNING ASSUMED IN PLACE

The following is the learning assumed to be in place:

- Communication at NQF Level 4.
- Mathematical Literacy at NQF Level 4 or equivalent.

Access to the Qualification:

Access to this Qualification is open to all learners who are in possession of a Technical Qualification or work related experience in the field in which he/she is working and will complete the Qualification.

Recognition of Prior Learning:

The structure of this Unit Standard based Qualification makes the Recognition of Prior Learning possible, if the learner is able to demonstrate competence in the knowledge, skills, values and attitudes implicit in this Qualification. Recognition of Prior Learning will be done by means of Integrated Assessment as mentioned in the previous paragraph.

This Recognition of Prior Learning may allow:

- For accelerated access to further learning.

- Gaining of credits towards a Qualification.

All Recognition of Prior Learning is subject to quality assurance by the relevant accredited Education and Training, Quality Assurance Body and is conducted by a registered assessor.

QUALIFICATION RULES

The Qualification is made up of a combination of learning outcomes from Fundamental, Core and Elective components, with the respective learner needing a minimum of 160 Credits to qualify.

Fundamental Credits:

- 22 Credits allocated for the Fundamental Unit Standards are compulsory.

Core Credits:

- 101 Credits have been allocated to the Core Unit Standards and are compulsory.

Electives Credits:

- A total of 37 Credits can be chosen from the list of Unit Standards in the elective category of the qualification to complete the total of 160 Credits required for the achievement of this Qualification.

EXIT LEVEL OUTCOMES

1. Communicate effectively with a divergent audience using efficient communication techniques.
2. Manage financial aspects relating to a section, department or division.
3. Manage the in and outsourcing of product and/or services through ethical contractual procurement processes.
4. Manage risk within the maintenance management environment.
5. Manage the maintenance management function of the organisation effectively and efficiently.
6. Manage and maintain a level of performance in terms of organisational set standards.

ASSOCIATED ASSESSMENT CRITERIA

Associated Assessment Criteria for Exit Level Outcome 1:

- 1.1 Communication within the business environment is conducted verbally and in writing.
- 1.2 An effective record keeping system for a business environment is created and maintained.

Associated Assessment Criteria for Exit Level Outcome 2:

- 2.1 Financial statements are interpreted, against financial forecasts and budgets.
- 2.2 Operational plans for the unit are drafted according to organisational procedure.
- 2.3 Maintenance related budgets and reports are prepared, analysed and variances which occur in the budget are controlled.

Associated Assessment Criteria for Exit Level Outcome 3:

3.1 The relationship between values, ethics and organisational culture and its impact on achieving goals and objectives are described for the organisational section, department or division.

3.2 The in/out sourcing procurement processes of goods and services for maintenance management purposes is managed through procurement management principles in accordance with organisational policies and procedures.

Associated Assessment Criteria for Exit Level Outcome 4:

4.1 A risk management control system is designed and implemented for an organisation in order to reduce risk.

4.2 The Health, Safety and Environmental Protection activities in a maintenance environment within an organisation are managed so as to assist in the control of hazards and risks to health, safety and environmental damage.

Associated Assessment Criteria for Exit Level Outcome 5:

5.1 A maintenance management strategy and procedures is implemented and maintained within an organisation.

5.2 Maintenance management resources are planned for, and managed, so as to ensure optimal utilisation of resources.

5.3 A clear understanding of the fundamental concepts of Supply Chain Management namely, Procurement, Operations, Distribution and Logistics is demonstrated through comparing the philosophy of Supply Chain Management with traditional business models giving practical examples of the advantages and disadvantages of adhering to a Supply Chain Philosophy.

Associated Assessment Criteria for Exit Level Outcome 6:

6.1 A quality management system is established and maintained so as to ensure that quality improvement processes take place whilst adhering to organisational maintenance quality standards and requirements.

6.2 The performance of various maintenance resources and equipment is managed through continual evaluation in order to determine their effectiveness.

Integrated Assessment:

Learning, teaching and assessment are inextricably linked. Whenever possible, the assessment of knowledge, skills, attitudes and values shown in the Unit Standards should be integrated. Assessment of the communication, language, literacy and numeracy should be conducted in conjunction with other aspects and should use authentic maintenance contexts wherever possible.

The term 'Integrated Assessment' relates to theoretical and practical components being assessed together. During integrated assessments the assessor should make use of formative and summative assessment methods and assess combinations of practical, applied, foundational and reflexive competencies.

Assessors and moderators should make use of a range of formative and summative assessment methods. Assessors should assess and give credits for the evidence of learning that has already been acquired through formal, informal and non-formal learning and work experience. Assessment should ensure that all specific outcomes, embedded knowledge and critical cross-field outcomes are evaluated. The assessment of the critical cross-field outcomes should be integrated with the assessment of specific outcomes and embedded knowledge.

INTERNATIONAL COMPARABILITY

Benchmarking was done by comparison to Unit Standards/Outcomes of learning against:

- Imants BVBA Consulting and Services - The Maintenance Management Guide - Belgium.
- EC Harris - W M Maintenance Management Training - France/Belgium.
- Association Française De Normalisation (AFNOR) - Technology of Maintenance - France/Belgium 2001.
- IDCON Inc (Idhammer Consultants) - USA - Maintenance Management Processes (Preventative Maintenance; Condition Monitoring; Maintenance Planning and Scheduling; Root Cause Analysis; Materials Management; Reliability and Maintenance Audit).
- Feed Forward - Australia - The Maintenance and Operational Reference Guide - Covers 47 key factors which explain the best practice maintenance to maintain operations.
- New Standard Institute - USA - Maintenance Planning and Scheduling; Shutdowns, Turnarounds and Outages; Maintenance Storerooms; Maintenance Process Management; Leadership Skills For Maintenance.
- New Zealand Qualification Authority - Unit Standards:
 - 964 Implement a schedule for an automotive preventative maintenance programme - Level 5 - 2 Credits.
 - 6464 Manage civil plant and equipment maintenance tasks - Level 4 - 8 Credits.
 - 6439 Prepare and implement civil plant, equipment, and vehicle maintenance schedule - Level 5 - 8 Credits.

A direct comparison of the title, specific outcomes, assessment criteria and embedded knowledge was undertaken with each standard, and the best practice points were highlighted and incorporated into each unit standard. Areas of commonality were the concepts relating to maintenance, such as preventative maintenance; corrective maintenance; total productive maintenance and improved-designed maintenance however, where points were incorporated these were written in a South African context and at a level appropriate to South Africa.

Because of the difference in levels across the different countries, difficulty was found in making actual direct comparisons, level to level and unit standard/course to unit standard.

ARTICULATION OPTIONS

This Qualification lends itself to both vertical and horizontal articulation possibilities. These possibilities ensure both mobility and progression for the learner. The learning areas outlined in the Rationale for the Qualification indicates the articulation possibilities.

Horizontal articulation possibilities lie with other NQF Level 5 Qualifications and Unit Standards in the Learning areas:

- ID 48730: National Certificate: Maintenance of High-speed production processes (fast moving Consumer Goods), NQF Level 5.
- ID 48765: National Diploma: Maintenance of High speed Production Processes (fast Moving Consumer Goods), NQF Level 5.
- National Diploma: Physical Planning Design and Management Engineering, NQF Level 5.

Vertical progression can be achieved by embarking on the study of related NQF Level 6 Qualifications:

- Advanced Diploma: Management, NQF Level 6.
- Advanced Diploma: Project Management, NQF Level 6.

MODERATION OPTIONS

- Anyone assessing a learner or moderating the assessment of a learner against this Qualification must register as an assessor with the relevant Education and Training Quality Assurance (ETQA) Body.
- 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 ETQA's policies and guidelines for assessment and moderation; in terms of agreements reached around assessment and moderation between ETQA's (including professional bodies); and in terms of the moderation guideline detailed immediately below.
- Moderation must include both internal and external moderation of assessments at exit points of the Qualification, unless ETQA policies specify otherwise. Moderation should encompass achievement of the competence described in the Qualification.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

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

- Hold a Qualification in Maintenance Management at NQF Level 6 or equivalent.
- Be registered as an assessor with the relevant ETQA or an ETQA that has a memorandum of understanding with the relevant ETQA.

Exit point for learners who do not complete the Qualification:

- Learners will be credited with Unit Standards in which they have proved competence.
- Learners who complete individual Unit Standards but do not complete this Qualification retain their credits. However, should the substance of the Unit Standard change, the validity of the credits towards the Qualification may be reviewed.
- Learners who change their provider or learning site before completing the Qualification may transfer their credits to the new learning site.

NOTES

This qualification replaces qualification ID: 50245, "National Certificate: Maintenance Coordination", Level 5, 160 Credits.

UNIT STANDARDS

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Fundamental	115817	Provide and respond to feedback	Level 5	4
Fundamental	115789	Sustain oral interaction across a wide range of contexts and critically evaluate spoken texts	Level 5	5
Fundamental	12433	Use communication techniques effectively	Level 5	8
Fundamental	115790	Write and present for a wide range of purposes, audiences and contexts	Level 5	5
Core	109999	Manage service providers in a selected organisation	Level 4	5
Core	15234	Apply efficient time management to the work of a department/division/section	Level 5	4
Core	115407	Apply the principles of change management in the workplace	Level 5	10
Core	115855	Create, maintain and update record keeping systems	Level 5	5
Core	123190	Design and implement a risk management control system	Level 5	6
Core	123198	Establish and manage a quality management system for maintenance in an organisation	Level 5	10
Core	123199	Monitor, control and process performance measurement activities	Level 5	10
Core	123200	Plan and manage maintenance resources	Level 5	7
Core	123191	Prepare, set, monitor and review maintenance budgets	Level 5	8

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Core	123201	Establish and manage safety, health and environmental protection in a maintenance environment	Level 6	10
Core	123194	Manage in and out sourcing	Level 6	4
Core	123192	Manage the return of goods	Level 6	2
Core	123197	Understand and integrate maintenance and project management principles	Level 6	20
Elective	253592	Identify, interpret and produce working pipe drawings	Level 4	6
Elective	263006	Interpret, read and produce electrical working drawings	Level 4	8
Elective	262944	Interpret, read and produce mechanical drawings	Level 4	12
Elective	114215	Mentor a colleague to enhance the individual's knowledge, skills, values and attitudes in a selected career path	Level 4	3
Elective	262985	Read, interpret and produce working architectural drawings	Level 4	18
Elective	120300	Analyse leadership and related theories in a work context	Level 5	8
Elective	11273	Apply Fundamental Concepts of Supply Chain Management Optimisation	Level 5	8
Elective	335898	Coordinate predictive and preventative maintenance (PPM)	Level 5	12
Elective	263377	Demonstrate an understanding of quality requirements for a quality management system	Level 5	12
Elective	114274	Demonstrate and apply an understanding of the Basic Conditions of Employment Act (Act 75 of 1997)	Level 5	8
Elective	114278	Demonstrate and apply an understanding of the Labour Relations Act (Act 66 of 1995)	Level 5	12
Elective	123195	Design, plan and implement a maintenance strategy and procedures	Level 5	32
Elective	123196	Design, plan and implement a waste management system	Level 5	20
Elective	252027	Devise and apply strategies to establish and maintain workplace relationships	Level 5	6
Elective	15224	Empower team members through recognising strengths, encouraging participation in decision making and delegating tasks	Level 5	4
Elective	15223	Implement training needs for teams and individuals to upgrade skills levels	Level 5	3
Elective	114226	Interpret and manage conflicts within the workplace	Level 5	8
Elective	252043	Manage a diverse work force to add value	Level 5	6
Elective	123193	Manage a storekeeping system	Level 5	5
Elective	252034	Monitor and evaluate team members against performance standards	Level 5	8
Elective	15235	Prepare and conduct staff selection interviews	Level 5	3
Elective	114879	Promote a productivity improvement strategy	Level 5	10
Elective	119180	Schedule and arrange maintenance and repairs for manufacturing operations	Level 5	4
Elective	10147	Supervise a project team of a technical project to deliver project objectives	Level 5	14
Elective	264403	Apply problem-solving techniques to make decisions on a multi-faceted problem	Level 6	5

LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION
None