# GOVERNMENT NOTICES

## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**No. 1112** **24 October 2008**

### 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

**General SGB 09**

registered by Organising Field 09 – Health Sciences and Social 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.saqa.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 17 November 2008.*** All correspondence should be marked **Standards Setting – General 09 SGB** and addressed to

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**D. MPHUTHING**
**ACTING DIRECTOR: STANDARDS SETTING AND DEVELOPMENT**

## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

***QUALIFICATION:***
***National Certificate: Medical Rescue Technology***

| ***SAQA QUAL ID*** | ***QUALIFICATION TITLE*** | | |
|---|---|---|---|
| 64229 | National Certificate: Medical Rescue Technology | | |
| ***ORIGINATOR*** | | ***PROVIDER*** | |
| General SGB 09 | | | |
| ***QUALIFICATION TYPE*** | ***FIELD*** | ***SUBFIELD*** | |
| National Certificate | 9 - Health Sciences and Social Services | Curative Health | |
| ***ABET BAND*** | ***MINIMUM CREDITS*** | ***NQF LEVEL*** | ***QUAL CLASS*** |
| Undefined | 131 | Level 6 | Regular-ELOAC |

***This qualification does not replace any other qualification and is not replaced by another qualification.***

***PURPOSE AND RATIONALE OF THE QUALIFICATION***
Purpose:

The purpose of this Qualification is to develop a learner competent in the knowledge, attitudes, insights and skills required for the emergency medical rescue profession.

The qualifying learner will be able to competently apply an integration of theoretical principles, proven techniques, practical experience, and appropriate management sand analytical skills in order to provide medical rescue services to all sectors of the community.

Successful completion of this Qualification will entitle the leaner to register with the Health Professions Council of South Africa (HPCSA) as a Medical Rescue Technician.

The exit level outcomes, range statements and assessment criteria must be interpreted and applied within the context of the scope of practice of Medical Rescue Technicians as defined by the Health Professions Council of South Africa.

Rationale:

This Qualification is designed to produce medical rescue technicians who are able to function on an operational level within the emergency medical care and rescue environments. The Qualification will develop cognitive, technological capabilities and skills necessary for management of urban, rural and wilderness rescue incidents. Graduates will practice primarily within the South Africa Emergency Services and military environments. This Qualification also aims to promote an understanding of the multi-disciplinary approach to effective, efficient patient care with the patients needs being central to the rescue operation.

The Qualification is also designed to enable learners to pursue further personal, and professional development; and to promote life-long learning.

***RECOGNIZE PREVIOUS LEARNING?***
Y

***LEARNING ASSUMED IN PLACE***

This Qualification is based on specific knowledge within the health sciences field; therefore knowledge of communication, information technology and sciences at NQF Level 5 is required.

Recognition of Prior Learning:

> Evidence of prior learning will be taken into consideration, based on proven competence in the assessment criteria of this Qualification and in agreement with the relevant provider and the applicable Education and Training Quality Assurance body (ETQA).

Access to the Qualification:

> Learners accessing this Qualification will be expected to have pre-existing registration with the Health Professions Council of South Africa, an Emergency Care qualification or a recognised equivalent at NQF level 5 and comply with the selection policy of the ETQA.

***QUALIFICATION RULES***

Learners are required to achieve all the credits for both the fundamental and core components and one of the two available electives of the Qualification. The Qualification is competency based. Notional hours will include both theoretical and clinical competencies as required by the Professional Board for Emergency Care Practitioners.

***EXIT LEVEL OUTCOMES***

1. Demonstrate effective teamwork, leadership, and communication and application of the principles of incident management, command and control, medical ethics, professional behaviour and the legal framework to the context within which medical rescue technicians operate while maintaining personal health, physical fitness and safety, (21 credits).

2. Manage and conduct high angle rescue operations in both structural and wilderness environments, (20 credits).

3. Utilise and apply appropriate incident command, control and management principles, technologies and techniques to access, stabilise, package and remove patients involved in motor vehicle accidents and/or machinery entrapment, (14 credits).

4. Manage and conduct search and rescue activities associated with structural fire and or low visibility environments, (12 credits).

5. Manage and conduct wilderness search and rescue operations, (12 credits).

6. Utilise and apply appropriate principles, technologies and techniques to rescue patients from rivers, dams and lakes, (12 credits).

7. Manage and conduct urban search and rescue activities within the confined space, trench rescue and structural collapse environments, (36 credits).

8. Elective One: Participate in search and rescue from caves, (4 credits).

9. Elective Two: Participate in heavy vehicle rescue activities, (4 credits).

Critical Cross-Field Outcomes (CCFOs):

> Identify and solve problems using critical and creative thinking in relation to the assessment and treatment of patients.
> Working effectively with others as a member of the team, group, organisation and community within the context of providing emergency care and supporting other services.

> Organize and manage oneself and one's activities responsibly and effectively in the preparation for emergency care as well as during the provision of emergency care.
> Collect, analyze, organize and critically evaluate information for the assessment and treatment of patients.
> Communicate effectively using visual, mathematical and/or language skills in the modes of oral and or written presentation, particularly through reports and the handover of patients to other services.
> Demonstrate cultural and aesthetic sensitivity in dealing with patients, colleagues and communities.
> Demonstrate effective use of science and technology, showing responsibility towards the environment and health of others.
> Demonstrate an understanding of the world as a set of related systems by recognising that the problem solving contexts do not exist in isolation.
> Demonstrate the need for continuous professional development and life-long learning.

***ASSOCIATED ASSESSMENT CRITERIA***
Associated Assessment Criteria for Exit Level Outcome 1:

1.1. Communication with patients, colleagues and other services is effective, clear, direct, and accurate, with appropriate use of modality including electronic media. Terminology is consistent with profession usage.
1.2. Interactions promote human dignity and are undertaken with due sensitivity to ethnic, cultural, linguistic, and religious and gender diversity.
1.3. Ethical principles of beneficence, autonomy and justice, truth telling, promise keeping and confidentiality are correctly applied in all contexts.
1.4. All clinical interactions and related practices are in line with the provisions and rules of the codes of ethics of the HPCSA and professional associations.
1.5. Accurate and comprehensive explanations are provided of the legal framework within which an emergency service provider and/or practitioner operates.
1.6. The importance of mental health and wellness on the part of the emergency care provider is comprehensively discussed, highlighting their role and importance, with particular reference to the impact on job effectiveness.
1.7. Suitable methods for achieving and maintaining operational fitness are identified, demonstrated and described in terms of lifestyle, diet and exercise techniques, highlighting the impact on self and job effectiveness.
1.8. Methods for maintaining personal safety are identified, demonstrated and applied through appropriate risk assessment, scene assessment, decision making and option taking.
1.9. Safe and effective use of emergency service vehicles and emergency response driving is described and/or demonstrated.
1.10. Operational routines are correctly conducted within and rescue environment.
1.11. Acceptable level of physical fitness and swimming proficiency is demonstrated.

Associated Assessment Criteria for Exit Level Outcome 2:

2.1. Incidents an/or scenarios are critically analysed, effective plans of action are synthesised and operationalised in order to safely and effectively access, treat and remove patients in the high angle rescue environment.
2.2. The high angle technician and team member's roles and responsibilities are described.
2.3. An ability to function effectively as a team leader, medic, rigger and safety officer is demonstrated.
2.4. Safety in the high angle environment and the effects of rescuer fatigue on the efficiency of an operation are described.
2.5. Characteristics function and/or application, strength and safety of knots used in high angle rescue are discussed.
2.6. The correct method of tying the prescribed knots in a safe and efficient manner is demonstrated.

2.7. Types, functions, construction, inspection, preparation, usage, storage and maintenance of high angle rescue equipment are discussed.
2.8. The concepts of working strength and breaking are explained.
2.9. Items of high angle rescue equipment are used in a safe and efficient manner.
2.10. Labelled diagrams of simple anchor points are accurately constructed.
2.11. Simple anchor points are rigged and safely operated within the specified time limits.
2.12. Anchor points are described and discussed with regard to their suitability and desirability for high angle rescue operations.
2.13. Suitable anchor points are selected and utilized during high angle rescue operations.
2.14. Labelled diagrams are correctly constructed which clearly show the workings of belay systems.
2.15. The general principle underpinning the use of belay systems in high angel rescue are discussed.
2.16. Belay systems are constructed and utilized in safe and efficient fashion.
2.17. The general principles underpinning the use of abseiling systems in high angle rescue are discussed.
2.18. Abseiling systems are constructed and utilized in safe and efficient fashion.
2.19. Labelled diagrams are correctly constructed which clearly show the workings of ascending systems.
2.20. The general principle underpinning the use of ascending systems in high angel rescue is discussed.
2.21. Ascending systems are constructed and utilized in safe and efficient fashion.
2.22. The principles of patient packaging are discussed.
2.23. Patients are correctly secured and packaged during high angle rescue operation.
2.24. Appropriate items of specialized high angle rescue gear are selected for use during practical scenarios.
2.25. Simple and multiple load sharing anchor points are rigged and safely operated within the specified time limits.
2.26. The role, function and need for stretcher jockeys/patient attendants is accurately described and discussed.
2.27. Patients are correctly secured and packaged during high angle rescue operation.
2.28. Stretchers are comprehensively described and discussed with reference to their constructing, characteristics and suitability in different high angle rescue environments.
2.29. Appropriate emergency medical patient care is provided at all times for patients during the high angle rescue operation.
2.30. Diagrams of mechanical advantage system's are correctly constructed, analyzed and/or interpreted.
2.31. The advantages and disadvantages of mechanical advantage systems are properly discussed.
2.32. Integral and compound mechanical advantage systems ranging from 2:1 to 9:1 are correctly constructed and operated in a safe and efficient manner.
2.33. Labelled diagrams are correctly constructed which clearly show the workings of simple and compound high wires.
2.34. The forces acting on high wires are correctly identified and discussed.
2.35. The general principles underpinning the use of high lines in high angel rescue are correctly described.
2.36. Carriageways, simple and compound high lines are constructed and utilized in safe and efficient fashion.
2.37. Items of natural gear are accurately described in relation to their function and correct operation.
2.38. An ability to safely lead climb a route and place anchors/protection is correctly demonstrated.
2.39. An ability to safely and efficiently belay a lead climber is correctly demonstrated.
2.40. General techniques of rock climbing are correctly described.
2.41. An ability to function effectively as a team leader, medic, rigger and safety officer is clearly demonstrated.

Associated Assessment Criteria for Exit Level Outcome 3:

3.1. Incidents and/or scenarios are critically analysed, effective plans of action are synthesised and operationalised in order to safely and effectively access, treat and remove patients in the motor vehicle and industrial rescue environments.
3.2. Support services are correctly identified and an explanation is given on how to timeously activate these services.
3.3. The functions of the protective gear that must be worn when undertaking light motor vehicle rescue activities are discussed.
3.4. The anatomy of a typical light motor vehicle is correctly drawn and labelled.
3.5. The principles of scene safety are discussed.
3.6. The selection and operation of stabilisation equipment, hand tools, pneumatic tools, electric tools and hydraulic tools must be demonstrated safely and effectively.
3.7. Maintenance of all types of tools used in motor vehicle rescues must be discussed and undertaken safely and effectively.
3.8. Scene stabilisation is achieved when conducting motor vehicle rescue practical scenarios.
3.9. Appropriate patient management is displayed by the learner when performing motor vehicle rescue practical scenarios.
3.10. The principles of dealing with machinery entrapment are discussed.
3.11. Patient access, disentanglement, packaging and removal is correctly described, discussed and demonstrated in the motor vehicle and industrial rescue settings.

Associated Assessment Criteria for Exit Level Outcome 4:

4.1. Incidents and or scenarios are critically analysed, effective plans of action are synthesised and operationalised in order to safely and effectively access, treat and remove patients from a structural fire or low visibility environment.
4.2. Appropriate primary fire responder and professional fire fighting equipment are selected for use during practical scenarios.
4.3. Items of fire search and rescue equipment are used in a safe and efficient manner.
4.4. Elements of combustion can be correctly discussed.
4.5. The way a fire behaves both indoors and outdoors is properly explained.
4.6. Combustible materials can be properly classified.
4.7. The dangers associated with fire search and rescue is comprehensively described.
4.8. Methods of extinguishing of fires are described and discussed.
4.9. Personal protective equipment is identified, maintained and used in the correct manner.
4.10. The self contained breathing apparatus is utilised in a safe and efficient manner.
4.11. A breathing apparatus team is properly managed.
4.12. Forcible entry techniques are demonstrated and the laws governing entry are explained.
4.13. Appropriate search techniques and patterns are demonstrated.
4.14. Emergency ventilation procedures are demonstrated and discussed.
4.15. Patient evacuation methods are demonstrated.

Associated Assessment Criteria for Exit Level Outcome 5:

5.1. Dangers and challenges associated with wilderness search and rescue activities in desert, mountain, forest, swamp and bushveld areas are correctly identified and discussed.
5.2. Role players and resources involved in search and rescue are correctly identified and discussed.
5.3. Typical incidents and callouts are accurately described.
5.4. Topographical Maps and aerial photographs are effectively analysed and accurately interpreted for route planning and decision making during wilderness operations.
5.5. Navigational instruments and maps are correctly combined and utilized in order to accurately plot and report position, distance and movement.

5.6. An ability to accurately and safely navigate during the night and/or in low visibility conditions is demonstrated.
5.7. Cross sections of topographical maps are accurately constructed.
5.8. Waypoints are reached within the specified time limits.
5.9. Movement through wilderness areas is conducted safely and effectively, without injury.
5.10. The requirements for survival in a wilderness area are described and discussed.
5.11. The characteristics of a good camp site are described and discussed.
5.12. The principles of search management are identified, described and discussed.
5.13. The role and function of each member of a search and rescue team is correctly described.
5.14. The principles of search management are correctly applied during search and rescue scenarios.
5.15. Teamwork and leadership skills are adequately demonstrated during practical training and scenarios.

Associated Assessment Criteria for Exit Level Outcome 6:

6.1. Incidents and or scenarios are critically analysed, effective plans of action are synthesised and operationalised in order to safely and effectively access, treat and remove patients in the aquatic rescue environment.
6.2. Items of aquatic rescue equipment are correctly inspected and utilized prior to and during rescue operations.
6.3. Patients are rapidly accessed, appropriately packaged and managed in the water and cared for at all times during aquatic rescue operations.
6.4. The correct method for approaching and subduing a panicked patient in the water is demonstrated.
6.5. The ability to swim 200 meters in 5 minutes or less is demonstrated.
6.6. The ability to swim a distance of 30 meters underwater on a single breath is demonstrated.
6.7. The ability to swim a distance of at least 2 km with the aid of personal floatation device is demonstrated.
6.8. The correct methods of approaching securing and towing a patient to safety are demonstrated.
6.9. The ability to effectively function as leader and member of an aquatic rescue team during practical, training scenarios is demonstrated.
6.10. The common causes for drowning in rivers are discussed.
6.11. The dangers associated with river rescue and swift moving water are properly explained.
6.12. The importance of proper preplanning is discussed.
6.13. Features that may be caused by moving water and are identified and their relevance for the rescuer/s is explained.
6.14. The effect that gradient and river topography have on the flow rate is described.
6.15. River communication methods are explained.
6.16. Various methods for safely and effectively crossing a fast moving river are described.
6.17. The ability to swim and move safely in fast moving water is demonstrated.
6.18. The extreme danger of low head dams for both victims and rescuers are explained through the use of labelled diagrams.
6.19. The management of a rescue involving a low head dam is demonstrated.
6.20. The correct use of inflatable boats and ferry angles to cross a river is demonstrated.
6.21. The correct use of high lines with and without inflatable boats to reach and rescue patients is demonstrated.
6.22. Use of Zip lines to move rescuers and victims across rivers in demonstrated.
6.23. The basic anatomy of a small boat is accurately drawn and the advantages and disadvantages of the different hull designs are discussed.
6.24. The various components of an outboard motor are labelled and the function of each component is explained.
6.25. Archimedes' principle in relation to the draft of a boat in the water is explained.
6.26. The effect of trimming a motor whilst in motion is explained.

6.27. The procedures for transporting a boat on land and launching a boat from trailer into the water are explained and demonstrated.
6.28. The general safety rules that should be obeyed when working with and around small craft are explained.
6.29. The functions, advantages and disadvantages of a lanyard stop switch are explained.
6.30. The effect of the centre of gravity on a boat, as well as how loading patterns can effect the handling of a boat, are described.
6.31. The ability to effectively perform the following is demonstrated:
> Launch, recover and pilot a small craft on inland waters.
> Approach a patient in the water.
> Perform a high speed bail off without injury.
> Deploy a standard anchor.
> Remove a boat from the water.
> Move a patient from the water into the boat, between boats and onto the land.
> Perform the pre launch system checks.
> Disconnect, refuel and re connect fuel systems.
> Couple and tow a disabled craft.
> Activate and deactivate a lanyard stop switch.
> Start a motor using the emergency line.

Associated Assessment Criteria for Exit Level Outcome 7:

7.1. Incidents and or scenarios are critically analysed, effective plans of action are synthesised and operationalised in order to safely and effectively access, treat and remove patients in an urban search rescue and/or hazardous materials environment.
7.2. Hazardous materials can be correctly identified and categorised.
7.3. Location and modes of transport of hazardous materials are correctly identified.
7.4. Effects of hazardous materials' exposure is discussed in detail.
7.5. The effects of radiation exposure are discussed.
7.6. Different levels of protective clothing and their particular usage are identified and described.
7.7. Different types of respiratory protection apparatus are correctly applied.
7.8. Protective clothing and equipment is correctly assembled and applied.
7.9. Environmental impact of hazardous materials is completely evaluated.
7.10. Monitoring systems used with regards to hazardous materials are correctly described and utilised.
7.11. A pre-incident plan for a specific area is produced and implemented.
7.12. The primary objectives and immediate concerns of a hazardous material incident are specifically discussed.
7.13. Criteria for strategic objectives are adequately appraised.
7.14. The general emergency behaviour model (GEBMO) is correctly evaluated.
7.15. Responsibilities of various personnel at a hazardous materials incident are correctly described.
7.16. Communication management for a hazardous materials incident is logically discussed.
7.17. Assessment of and procedures for a hazardous materials incident are logically planned and conducted.
7.18. The tactical objectives needed to achieve strategic objectives are discussed and defensive control actions used to prevent further contamination applied.
7.19. Hazardous materials are correctly classified and the dangers associated with them are evaluated in detail.
7.20. Different forms of contamination are described and the decontamination procedures demonstrated.
7.21. Confined spaces are correctly defined and described according to types and classification.
7.22. Legislation pertaining to confined space rescue is adequately discussed.
7.23. Support services used in confined space rescue are summarised.
7.24. Natural and man-made hazards are described and compared.

7.25. All hazards that can be commonly found in confined spaces are appropriately discussed.
7.26. Monitoring and testing methods for the internal presence of gases are described and demonstrated.
7.27. Confined space rescue and retrieval equipment is appraised and the use thereof is demonstrated.
7.28. Ventilation strategies are discussed and ventilation equipment is correctly applied.
7.29. Respiration equipment is described and the use thereof demonstrated.
7.30. Different roles of rescue personnel are explained in detail.
7.31. A confined space rescue plan is compiled, co-ordinated and executed.
7.32. Navigation in a confined space environment is demonstrated.
7.33. Different types of trench accidents are discussed and the dangers associated with trench rescue work are assessed.
7.34. Factors contributing to a trench collapse are identified.
7.35. The expected hazards that may be found at a trench incident are described and hazard control at a trench rescue incident is explained.
7.36. Soil types and their implications in a trench rescue are explained.
7.37. Different types of equipment used in trench rescue are appraised and demonstrated.
7.38. Personal protective equipment required in trench rescue operations is correctly listed.
7.39. Activities of the primary and secondary assessment phase are appropriately described and conducted.
7.40. The procedures to locate a buried victim are discussed and the different roles of rescue personnel are explained.
7.41. Different procedures for making a trench safe are described.
7.42. Shoring of conventional and intersecting trenches is demonstrated.
7.43. Different mechanisms of entrapment are explained and the removals of different mechanisms of entrapment are demonstrated.
7.44. Freeing a victim from the trench floor is demonstrated.
7.45. Methods other than shoring used to make a trench safe are appraised.
7.46. Safety during all phases of a structural collapse incident is explained and the safe termination of a trench rescue incident is demonstrated.
7.47. A risk hazard analysis is applied and the recognition and mitigation of hazards is correctly performed.
7.48. The concept of lookout, communication, escape route and safe zones (LCES) is continuously applied.
7.49. Safety equipment for structural collapse is logically appraised and correctly applied.
7.50. Tension, compression, bending and shear forces exerted on building materials are explained.
7.51. Ductile and brittle properties of different building materials are described.
7.52. Vertical load and lateral load resistant systems are summarised.
7.53. Environmental and human caused forces affecting structures are explained.
7.54. Common collapse patterns caused by external forces are described.
7.55. Cracks in concrete and masonry are logically discussed with regards to their importance.
7.56. Hazardous conditions in different structural engineering systems are explained and common methods and equipment used to mitigate structural hazards are described.
7.57. Basic strategies in the initial information gathering stage are described and applied.
7.58. Team deployment at a structural collapse incident is explained and structure hazards and evaluation marking are demonstrated.
7.59. Survival priorities are explained in detail, should the rescuer be cut off from supplies.
7.60. Specialist tools used in structural collapse rescue are identified, demonstrated and maintained.
7.61. The types and amount of various loads that need to be supported are explained and the various types of shoring techniques are constructed or illustrated.
7.62. Breaching and breaking techniques utilised to access a victim are demonstrated.
7.63. Cutting and burning techniques utilised to access a victim are demonstrated.
7.64. Lifting and rigging techniques utilised to access a victim are demonstrated.

7.65. The search and reconnaissance teams' role at a structural collapse incident is described in detail.
7.66. Physical void search and audible call-out techniques to locate a victim are performed.
7.67. Fibre optics, search cameras, Infrared/thermal imaging and electronic listening devices used to locate a victim are described and discussed.
7.68. The use of canines to locate a victim are discussed and demonstrated.

Associated Assessment Criteria for Exit Level Outcome 8:

8.1. The environmental hazards and dangers associated with caves and cave rescue are described and discussed.
8.2. The importance of local geographical knowledge when dealing with a cave rescue is explained.
8.3. The types of situations and/or incidents leading to the need for a cave rescue are described.
8.4. The methods of lighting, ventilating, communicating in and moving around inside a cave are all described and explained.
8.5. The value of obtaining a diagram of the interior of the cave is discussed.
8.6. Methods of locating, accessing, treating, packaging and removing patients from a cave are discussed and demonstrated.

Associated Assessment Criteria for Exit Level Outcome 9:

9.1. The special considerations and precautions that need to be considered when dealing with an incident involving a heavy vehicle are discussed.
9.2. The procedure for tilting a cab forward on a horse and trailer is described.
9.3. The dangers worsen a situation by cutting through hydraulic hoses on any specialised vehicle are explained.
9.4. The general principles for dealing with vehicles and/or persons lodged underneath or between large motor vehicles are discussed.
9.5. The additional types of specialised equipment that may be needed for an incident involving a specialised vehicle are listed or named.
9.6. The method for stopping an approaching train is explained.
9.7. The principles for dealing with an aircraft involved in an accident are discussed.
9.8. The dangers that a downed aircraft may pose for both rescuer and general public are described.
9.9. Methods for stabilising a railway coach that has been derailed are discussed.
9.10. Limitations that conventional rescue equipment may have in terms of accessing and/or removing patients from specialised vehicles after entrapment are described.
9.11. The generic principles to be considered when dealing with a bus accident involving multiple entrapments are described.
9.12. The need for additional requirements to stabilise a specialised vehicle is explained.
9.13. The applicable support services that may be summoned for an incident involving a specialised vehicle are named.

Integrated Assessment:

Integrated assessment takes the form of an appropriate variety of assessment methods, for example: written and oral examinations, problem solving assignments, projects presentations, case studies, portfolios, log books, clinical reports and objectively structured clinical examination, reflective practice journals and simulated medical and rescue scenarios.

Formative Assessment:

Learning and assessment are integrated. The scheme of work includes tests and assignments, practical work and competency evaluation of practical skills. The process is continuous and focuses on smaller sections of the work in limited number of outcomes.

Summative Assessment:

Summative assessments evaluate the learners' abilities to manage and integrate a larger body of knowledge and to achieve the stated outcomes. The summative assessment also focuses on the learners' ability to integrate knowledge and skills in the particular area of specialisation. Summative assessments include theory and practical assessments.

***INTERNATIONAL COMPARABILITY***

This Qualification was compared with the United States of America's (USA) National Fire Protection Association (NFPA) Urban Search and Rescue Technician qualifications for fire fighters and emergency medical technicians (EMTs).

The USA has been a world leader in establishing such standards since The National Highway Traffic Safety Administration (NHTSA) assumed responsibility for the development of training courses that are responsive to the standards established by the Highway Safety Act of 1966 (amended). These training courses are designed to provide national guidelines for training. NHTSA`s intention is that they be of the highest quality and be maintained in a current and up-to-date status from the point of view of both technical content and instructional strategy. The EMT-Paramedic: National Standard Curriculum represents the highest level of education in EMS pre-hospital training.

Several vocational, technical, and Junior colleges offer a 2 year Associate's of Applied Science Degree, Emergency Management Services (AAS, EMS) requiring approximately 70-75 semester hours of study. These programs prepare students for certification as a paramedic and further provide them with the background to manage and supervise emergency medical first responder units in support of fire departments, ambulance companies and other first responder agencies. In addition to EMT courses students also take courses such as:

> English Composition.
> Modern College Mathematics or Introduction to College Algebra & Trigonometry.
> Principles of Ethics.
> On Being a Supervisor.
> Anatomy & Physiology for Paramedics.
> Computing Concepts & Applications.
> Introduction to Human Communication.
> Managing the Emergency Medical Service Paramedic.
> Fire Education and Public Relations.

Clinical/field requirements:

> Objectives for the USA`s NFPA Rescue Curriculum and EMT-P programmes are available.

Emergency Care education and training in countries with similar in economies to that of South Africa included the following:

> Senegal has no on-going Rescue Technician or EMT training programme remotely close to the South African Qualification. Medical training for ambulance personnel is similar to EMT standards, but there are no national standards for training throughout the country. Individuals in communities away from the major cities such as Dakar receive very little training.

> The United Arab Emirates has a limited number of medics trained to EMT standards but very little technical rescue training. Such skills and training are received primarily outside the country. Different governmental agencies contract with companies from different countries such as the USA, Germany, Canada, United Kingdom, Australia, and Saudi Arabia to come in to conduct training. Each contractor brings in standards from his own country. There are no national level

standards for paramedic training in the country. Additionally, there are no standards for maintaining medical competency or life time development.

> Emergency Medical Services in the United Kingdom have taken a decision to stop short course training and are currently developing similar higher education qualifications for pre-hospital practitioners. This decision was taken after reviewing the South African higher education model.

Conclusion:

> The advanced certificate compares favourably with world's best practice as represented by the qualifications of the United States of America while leading the way on the African continent for establishing standards for the equivalent of an African Rescue Technician.

***ARTICULATION OPTIONS***

This Qualification serves to provide candidates with the foundational knowledge, cognitive and conceptual tools and practical techniques in ancillary health services and acts as a springboard from which learners may progress to NQF Level 7 and 8 qualifications. Holders of this Qualification will be able to meaningfully articulate with the Bachelor's Degree in Emergency Medical Care.

Horizontal articulation is limited to science-related credits in common with other health-related fields.

***MODERATION OPTIONS***

> Providers offering learning towards this qualification must be accredited by the relevant ETQA or ETQA that has a Memorandum of Understanding in place with the relevant ETQA.

> In particular, accreditation is dependent on providers demonstrating that their curriculum and learning programme/s meet the requirements specified by the relevant ETQA.

> Moderation of assessment will be overseen by the appropriate ETQA according to moderation principles and procedures.

***CRITERIA FOR THE REGISTRATION OF ASSESSORS***

> Assessors must be registered in terms of the requirements of SAQA and the relevant ETQA or ETQA that has a Memorandum of Understanding in place with the relevant ETQA.

> Assessors and moderators must be used in a manner that fits into the quality management system of the provider and in accordance with the institutional tuition and assessment policies. This must also apply to the appointment of outside persons.

***NOTES***

This qualification is not based on Unit Standards.

***UNIT STANDARDS***

***This qualification is not based on Unit Standards.***

***LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION***

***None***