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GOVERNMENT NOTICE

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## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

No. 690

26 June 2009



## 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

**Emergency Care Practitioners**

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](http://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 27 July 2009**. All correspondence should be marked **Standards Setting – SGB for Emergency Care Practitioners** and addressed to

The Director: Standards Setting and Development  
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Attention: Mr. E. Brown

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D. MPHUTHING

ACTING DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



## SOUTH AFRICAN QUALIFICATIONS AUTHORITY

**QUALIFICATION:**  
**Bachelor: Emergency Medical Care**

<b>SAQA QUAL ID</b>	<b>QUALIFICATION TITLE</b>		
71789	Bachelor: Emergency Medical Care		
<b>ORIGINATOR</b>	<b>PROVIDER</b>		
SGB Emergency Care Practitioners			
<b>QUALIFICATION TYPE</b>	<b>FIELD</b>	<b>SUBFIELD</b>	
Professional Qualification	9 - Health Sciences and Social Services	Promotive Health and Developmental Services	
<b>ABET BAND</b>	<b>MINIMUM CREDITS</b>	<b>NQF LEVEL</b>	<b>QUAL CLASS</b>
Undefined	480	Level 7	Regular-ELOAC

**This qualification replaces:**

Qual ID	Qualification Title	NQF Level	Min Credits	Replacement Status
1825	Bachelor of Technology: Emergency Medical Care	Level 7	480	Will occur as soon as 71789 is registered

**PURPOSE AND RATIONALE OF THE QUALIFICATION**

**Purpose:**

The purpose of this qualification is to develop a learner competent in the knowledge, attitude, insight and skills required for the emergency medical care and rescue professions.

The qualifying learner will be able to competently apply an integration of theoretical principles, proven techniques, practical experience, clinical procedures and appropriate skills in order to:

- Provide independent, specialized, emergency medical care and rescue services to all sectors of the community.
- Apply management, education and research skills during independent practice and function in a supervisory, clinical governance and/or quality assurance capacity within emergency services and healthcare environments.
- Become a reflective practitioner and life long learner within emergency medical care and rescue profession.

Successful completion of this qualification will entitle the learner to register with the Health Professions Council of South Africa (HPCSA) as an Independent Emergency Care Practitioner.

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

**Rationale:**

This qualification is designed to produce professionals who are independent clinical practitioners and rescue specialists within the emergency medical care and rescue environments. The qualification will develop cognitive, technological and scientific enquiry and capability and promote the research, innovation and management skills necessary for management and development of the emergency medical and rescue professions. Graduates will practice

primarily within South Africa, in rural and urban contexts that range from sophisticated emergency medical care facilities to remote primary health care settings. This qualification also aims to promote an understanding of the multi-disciplinary approach to effective, efficient patient care. In addition, this qualification aims to produce a professional practitioner that will take cognisance of South African history and will be able to adapt to the unique circumstances of a changing South Africa with emphasis on equity in health care, social upliftment and reduction of burden of disease.

The qualification is also designed to enable learners to pursue further personal, managerial, education, training and professional development and to promote life-long learning.

#### **RECOGNIZE PREVIOUS LEARNING?**

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#### **LEARNING ASSUMED IN PLACE**

This qualification is based on specific knowledge within the health sciences field. Knowledge of communication, information technology and sciences at NQF Level 4 is also assumed.

#### **Recognition of Prior Learning:**

This qualification may be achieved in part through RPL, in accordance with the policies and procedures of the educational service provider, in agreement with the relevant ETQA and on presenting the relevant evidence that meets the outcomes of the qualification.

#### **Access to the Qualification:**

Learners accessing this qualification will be expected to have a grade 12 or a recognised equivalent qualification at NQF Level 4, or in accordance with the selection policy of the National Department of Education and the respective educational provider. In addition, learners will have passed Mathematics or Mathematical Literacy and Physical Sciences or Life Sciences at NQF Level 4.

#### **QUALIFICATION RULES**

The Fundamental Component of the Qualification comprises the ethical and legal component of the Qualification to the value of 20 Credits and is compulsory.

The Core Component of the Qualification comprises all the learning essential to the emergency care practitioner to the value of 440 Credits and is compulsory.

The Elective Component takes the form of a research submission to the minimum value of 20 credits and must be completed for the learner to be awarded this Qualification.

#### **EXIT LEVEL OUTCOMES**

1. Apply the principles of medical ethics and professional behaviour within the emergency care milieu.
2. Practise, supervise and facilitate the provision of emergency medical care to all sectors of the community.
3. Perform medical rescue in a wide range of rescue contexts.
4. Demonstrate knowledge and understanding of human and basic sciences underpinning emergency medical care.
5. Provide in-service education and training in emergency medical care and rescue.

6. Demonstrate an understanding of the management, structure and function of emergency medical service (EMS) systems in South Africa and provide operational and clinical supervision within an emergency medical and rescue service.

7. Develop research skills and conduct research in emergency medical care and rescue.

**Critical Cross-Field Outcomes:**

- Identifying and solving problems using critical and creative thinking are demonstrated in the assessment and treatment of patients.
- Working effectively with others as a member of the team, group, organisation and community is demonstrated within the context of providing emergency care and supporting other services.
- Organizing and managing oneself and one's activities responsibly and effectively is demonstrated in the preparation for emergency care as well as during the provision of emergency care.
- Collecting, analysing, organising and critically evaluating information is demonstrated in the assessment and treatment of patients.
- Communicating effectively using visual, mathematical and/or language skills in the modes of oral and or written presentation is demonstrated through reports and the handover of patients to other services and demonstrating cultural and aesthetic sensitivity in dealing with patients, colleagues and communities.
- Effective use of science and technology, showing responsibility towards the environment and health of others is demonstrated in all the actions required in providing emergency medical care.
- Demonstrating an understanding of the world as a set of related systems by recognising that the problem solving contexts do not exist in isolation is demonstrated in all the actions required in providing emergency medical care.

**ASSOCIATED ASSESSMENT CRITERIA**

**Associated Assessment Criteria for Exit Level Outcome 1:**

- All interactions with patients, colleagues and other stakeholders promote human dignity and are undertaken with due sensitivity to ethnic, cultural, linguistic, religious and gender diversity.
- Ethical principles of beneficence, autonomy, justice, truth telling, promise keeping and confidentiality are appropriately applied in all contexts in accordance with the provisions and rules of the codes of ethics of the Health Professional Council of South Africa and professional associations.
- Accurate and comprehensive explanations are provided of the current, relevant legal framework within which an emergency service provider and/or practitioner operates.
- The importance of physical and mental health and wellness on the part of the emergency care provider is comprehensively discussed, with particular reference to the impact of ill-health on job effectiveness.
- Methods for maintaining personal safety are identified, demonstrated and applied through appropriate risk assessment, scene assessment, decision making and option taking.
- Safe and effective use of emergency service vehicles and emergency response driving are applied under all conditions.

**Associated Assessment Criteria for Exit Level Outcome 2:**

- Potential hazards within the emergency environment are identified in terms of their origins, impact and means of management or mitigation.
- Infection control is discussed and implemented in line with current relevant protocols and institutional operating procedures.
- Logical, sound clinical decision-making in medical and/or trauma related disorders is demonstrated, informed by and validated through comprehensive history taking and appropriate clinical assessment, which is based on the underlying patho-physiology.

- Patients are managed within the scope of practice of an Emergency Care Practitioner, with due consideration for evidence informed practice in which clinical and intensive care procedures and practices are appropriately discussed and applied.
- The principles of primary health care, disease prevention, health promotion and counselling are described and demonstrated with special reference to HIV and AIDS awareness.
- Medical records are constructed which provide accurate information of patient condition and treatment and patient hand over is carried out in line with local protocols and procedures.

**Associated Assessment Criteria for Exit Level Outcome 3:**

- Safety principles are applied throughout the rescue operation, including the evaluation of sources and impact of hazards within the rescue environment and the application of the means for mitigation thereof.
- Use of rescue equipment is demonstrated and comprehensively described in terms of function, specifications, storage and maintenance.
- Theoretical concepts and strategies underpinning the management of specific rescue incidents are explained and applicable rescue skills, procedures and techniques are effectively demonstrated.
- Rescue incidents and or scenarios are managed in terms of incident analysis, planning, preparation and execution in accordance with established procedure and organisational protocols.
- Range of rescue incidents include but are not limited to:
  - Fire, Search and Rescue.
  - High Angle and Rope Rescue.
  - Vehicle Extrication.
  - Industrial and agricultural rescue.
  - Wilderness Search and Rescue.
  - Aviation Rescue.
  - Aquatic Rescue (Swift Water Rescue, Surface Rescue and Small Boat Handling).
  - Confined Space Rescue.
  - Trench Rescue.
  - Structural Collapse Rescue.
  - Hazardous Materials Rescue.
- Teamwork, incident command and leadership skills are suitably demonstrated during any medical rescue situation.

**Associated Assessment Criteria for Exit Level Outcome 4:**

- The composition, general form, spatial orientation and position of structures within the regions of the human body are described and integrated within a clinical context.
- The physiological functioning of the systems of the human body are explained and integrated into patient care.
- Key principles of chemistry and physics are correctly explained and applied to emergency medical care and rescue contexts.
- Key principles of microbiology are described and applied in emergency medical care contexts, with particular reference to communicable diseases and infection control.
- The pathogenesis of disease and injury is comprehensively described in relation to the anatomy and physiology of the applicable body systems.
- The integration of anatomy, physiology and pathology are applied in problem-based scenarios.
- Principles of pharmacology are explained and drugs used within the scope of practice of the Emergency Care Practitioner are comprehensively described in terms of class, schedule, generic name, mechanism of action, indications, contra-indications, precautions, side effects, packaging, dosage, route of administration, preparation for and administration thereof.

**Associated Assessment Criteria for Exit Level Outcome 5:**



- Relevant, current national policies applicable to education and training requirements are identified and explained.
- Theories of teaching and learning for different age-groups explained and key issues in education and training such as RPL, Access, Portability, Articulation, Quality Assurance, are identified and discussed.
- Educational and training needs for each of the identified stakeholder group are identified and discussed.
- Learning programmes with relevant learning resources are developed and delivered in accordance with the needs of the individual target groups.
- Appropriate assessment criteria are developed to assess the learning outcome/s at the culmination of the relevant session.

Associated Assessment Criteria for Exit Level Outcome 6:

- The structures, roles and functions of EMS systems, both public and private, within the South African context are discussed in terms of the relevant current legislative requirements.
- Explanations are provided of the interdependence and interrelationships occurring between EMS systems and other allied emergency and health care structures in terms of the key responsibilities of each.
- Multi-disciplinary approaches to emergency care and rescue scenarios are discussed with special reference to professional communication between and co-operation with patients and stakeholders.
- Operational needs are analysed and factors influencing policy and operation of the emergency care and/or rescue services are discussed.
- A departmental operations plan is designed for the management of all necessary resources and the need for each resource included is discussed.
- Range of resources includes but is not limited to:
  - Budget, labour legislation and practices, human resources management, equipment procurement and maintenance, stock control, fleet management.
- Key performance indicators for effective and efficient service delivery are determined and applied.
- A risk management plan is developed for a potential situational disaster.

Associated Assessment Criteria for Exit Level Outcome 7:

- Research needs within the field of emergency care are identified and an appropriate area for research is selected.
- Quantitative and qualitative research methods are explained and discussed as possible solutions to own research needs.
- A professional research proposal within the field of emergency care is developed, motivated and presented.
- Research is conducted ethically according to established research methodology and practice.
- Research findings and conclusions are prepared and presented in a research report.

Integrated Assessment:

Integrated assessment strategies are applied across critical cross-field outcomes. Integrated assessment takes the form of a variety of appropriate assessment methods, which include: written and oral examinations, problem solving assignments, projects presentations, case studies, portfolios, log books, clinical reports and objectively structured clinical examinations, 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 numbers 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 for Emergency Medical Care was compared with existing similar qualifications in developed and emerging countries. For the purpose of this report, programmes from the United States of America and Senegal were identified.

This Qualification was compared against the United States of America (USA) Qualifications for an EMT-Paramedic which are established by United States Department of Transportation National Highway Traffic Safety Administration.

The USA has been a world leader in establishing EMT 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.

The USA EMT-Paramedic certificate course typically is a 1000-1200 hour course. Learners follow the one-year paramedic programme, which consists of classroom instruction, clinical, field and skills training. Successful completion of the programme prepares learners to take the National Registry EMT-P certification examination.

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 programmes prepare learners 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 and Trigonometry.
- Principles of Ethics.
- On Being a Supervisor.
- Anatomy and Physiology for Paramedics.
- Computing Concepts and Applications.
- Introduction to Human Communication.
- Managing the Emergency Medical Service Paramedic.
- Fire Education and Public Relations.

A limited number of colleges offer a 4 year Bachelor of Science in Emergency Medical Services (BSEMS). The bachelor's degree requires 128 semester hours of course work consisting of liberal arts core courses as well as 51 hours of paramedic course work. Learners going for the BSEMS will focus on concentration areas such as Emergency Medical Services Administration, Emergency Medical Services education, or Upper level EMS Clinical Courses during their third

and fourth year of school. Many learners in the clinical concentration use these classes as pre-med classes.

The South African Professional Degree in Emergency Medical Care is very similar to a 4 year programme in the USA. Educational institutions offering an EMT-P bachelors degree in the USA must adhere to the United States Department of Transportation National Highway Traffic Safety Administration standards and objectives. The assessment criteria for the different Exit Level Outcomes are very similar to the objectives stated in the USA's National Curriculum for EMT-P programs.

The United States Department of Transportation National Highway Traffic Safety Administration states that a paramedic programme should consist of four components of instruction: didactic instruction, skills laboratory, clinical education, and field internship. The first three typically occur concurrently, and the field internship serves as a verification that the student is serving as a competent, entry level practitioner. The South African qualification has the same components as the USA's National Curriculum for EMT-P programmes as follows:

**Preparatory:**

- EMS Systems/The Roles and Responsibilities of the Paramedic.
- The Well-Being of the Paramedic.
- Illness and Injury Prevention.
- Medical/Legal Issues.
- Ethics.
- General Principles of Pathophysiologies.
- Pharmacology.
- Venous Access and Medication Administration.
- Therapeutic Communications.
- Life Span Development.

**Airway management and ventilation medical:**

- Pulmonary, Cardiology.
- Neurology, Endocrinology.
- Allergies and Anaphylaxis.
- Gastroenterology, Renal/Urology.
- Toxicology, Haematology.
- Environmental Conditions.
- Infectious and Communicable Diseases.
- Behavioural and Psychiatric Disorders.
- Gynaecology, Obstetrics.

**Patient assessment:**

- History Taking.
- Techniques of Physical Examination.
- Patient Assessment.
- Clinical Decision Making.
- Communications and Documentation.

**Trauma:**

- Trauma Systems/Mechanism of Injury.
- Haemorrhage and Shock, Burns.
- Soft Tissue Trauma.

- Head and Facial Trauma, Spinal Trauma.
- Thoracic Trauma, Abdominal Trauma.
- Musculoskeletal Trauma.

Special considerations:

- Neonatology, Paediatrics.
- Geriatrics.
- Abuse and Assault.
- Patients with Special Challenges.
- Acute Interventions for the Chronic Care Patient.
- Assessment based management.

Operations:

- Ambulance Operations.
- Medical Incident Command.
- Rescue Awareness and Operations.
- Hazardous Materials Incidents.
- Crime Scene Awareness.

Clinical/field requirements:

Objectives for the USA's National Curriculum: EMT-P programmes are available.

Senegal has no on-going Emergency Medical Training programme remotely close to the South African qualification. Medical training for ambulance personnel is similar to EMT-B 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-P standards but this training was 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 own country. There are no national level standards for paramedic training in the country. Additionally, there are no standards for maintaining medical competency or lifetime development.

Emergency Medical Services in the United Kingdom has 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:

This Professional Degree compares favourably with world's best practice as represented by the United States of America qualifications, while leading the way on the African continent for establishing standards for the equivalent of a emergency medical care practitioner.

### **ARTICULATION OPTIONS**

This programme serves to provide candidates with the foundational knowledge, cognitive and conceptual tools and practical techniques in relevant to many health services and acts as a springboard from which learners may progress into other health areas at NQF Level 9 qualifications.

This Qualification articulates horizontally, inter alia, with:

- ID 59257: The Bachelor of Nursing, 508 Credits at NQF Level 7.

This Qualification articulates vertically with any applicable Masters degree, at NQF Level 9.

#### **MODERATION OPTIONS**

- Providers offering learning towards this qualification must be accredited by the relevant ETQA, currently the HEQC, in conjunction with the Health Professions Council of South Africa (HPCSA). In particular, accreditation is dependent on providers demonstrating that their curricula/learning programme/s meet the requirements specified by the HPCSA.
- 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 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 assessors and/or moderators.

#### **NOTES**

This qualification replaces qualification 1825, "Bachelor of Technology: Emergency Medical Care", Level 7, 480 credits.

This Qualification does not refer to a new qualification but constitutes a revision of the existing B Tech Emergency Medical Care qualification (ID 1825), which is already registered with South African Qualifications Authority and has been offered by the Universities for some time now. The modifications and changes to the qualification structure and exit level outcomes remain valid are therefore largely the same. Care has been taken to ensure that the naming and terminology used to define and refer to the revised qualification are aligned to the newly promulgated HEQF.

#### **UNIT STANDARDS**

*This qualification is not based on Unit Standards.*

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

**None**