

## BQA NCQF QUALIFICATION TEMPLATE

SECTION A: QUALIFICATION DETAILS														
<b>QUALIFICATION DEVELOPER (S)</b>			Boitekanelo College											
<b>TITLE</b>		Diploma in Emergency Care Technology						<b>NCQF LEVEL</b>		6				
<b>STRANDS (where applicable)</b>		1. 2. N/A 3. 4.												
<b>FIELD</b>		Health and Social Services			<b>SUB-FIELD</b>			Health Sciences			<b>CREDIT VALUE</b>		251	
New Qualification						Legacy Qualification								
<b>SUB-FRAMEWORK</b>		General Education				TVET				Higher Education			✓	
<b>QUALIFICATION TYPE</b>		Certificate	I	II	III	IV	V	Diploma	✓	Bachelor				
		Bachelor Honours				Post Graduate Certificate				Post Graduate Diploma				
		Masters						Doctorate/ PhD						
<b>RATIONALE AND PURPOSE OF THE QUALIFICATION</b>  Botswana currently has limited advanced emergency medical technicians who have possess the requisite skills and competencies to manage critically ill and injured patients in the prehospital environment. Road traffic accidents are one of the leading causes of death and disabilities in Botswana, with 68% deemed preventable through established trauma systems which include training of emergency medical technicians (Motsumi, 2020). Motor vehicle collisions increased by 7.4% in 2019, whereas casualties rose by 3,2% in 2019 (MVA, 2019). As a result, there is currently an increased burden of trauma emergencies which requires more emergency care technicians to be trained to safely manage patients before they reach the hospital. These emergency technicians possess competencies such as advanced airway management, cardio-respiratory therapies, management of paediatrics as well as basic rescue techniques.														

The Emergency medical care training and education has over the years been a priority for Botswana. According to the HRDC 2019 report, emergency medical care technology remains a high priority for Botswana. The qualification will foster career progression and will allow professional development and life-long learning within sectors of emergency medical services industry (e.g. shift manager, communications call-centre operator, etc.). The qualification will address the needs of the emergency medical services industry by providing a technician with an intermediate and advanced scope of practice.

### **PURPOSE: (itemise exit level outcomes)**

The purpose of this qualification is to

1. Demonstrate understanding of the role of Emergency Medical Services within the Botswana Healthcare system.
2. Integrate and apply knowledge and understanding of health sciences and natural sciences to make informed decisions and clinical judgments relating to treatment
3. Perform appropriate clinical assessments and provide appropriate interventions as per the advanced emergency medical technician scope of practice.
4. Use appropriate rescue equipment to safely extricate patients
5. Uphold ethical principles, legal obligations, and professional responsibilities in emergency care settings, including patient confidentiality, informed consent, and adherence to regulatory standards.
6. Advocate for patients' rights, promoting patient empowerment, and engaging in patient education to enhance health literacy and self-care practices.
7. Effectively communicate with patients, their families and other health care professionals

### **MINIMUM ENTRY REQUIREMENTS (including access and inclusion)**

To be eligible for admissions for this qualification potential candidates must have:

1. NCQF Level 4 with D or better in Mathematics, English and Sciences
2. Applicants will also qualify for entry through Recognitions of Prior Learning (RPL) and Credit Accumulation Transfer (CAT) as per institution RPL and CAT policy.

*(Note: Please use Arial 11 font for completing the template)*

## BQA NCQF QUALIFICATION TEMPLATE

<b>SECTION B</b>		<b>QUALIFICATION SPECIFICATION</b>	
<b>GRADUATE PROFILE (LEARNING OUTCOMES)</b>		<b>ASSESSMENT CRITERIA</b>	
1. Demonstrate understanding of the role of Emergency Medical Services within the Botswana Healthcare system.		<p>1.1 Identify the role, function, challenges, goals and strategies of the Ministry of Health as well as the different tiers and levels of health care delivery in Botswana.</p> <p>1.2 Demonstrate an understanding of the structure, funding, role and function, both public and private, within the Botswana context.</p> <p>1.3 Explain the interdependence and interrelationships occurring between Emergency Medical Services and other Allied Health Care structures.</p>	
2. Integrate and apply knowledge and understanding of health sciences and natural sciences to make informed decisions and clinical judgments relating to treatment		<p>2.1 Apply knowledge of human anatomy, physiology and pathophysiology to effectively assess and manage patients in a variety of medical situations</p> <p>2.2 Demonstrate knowledge of pharmacokinetics and pharmacodynamics and safely administer appropriate medications in an emergency setting</p> <p>2.3 Apply key concepts of physics in the biomechanics of injury, determining the forces involved in trauma incidents and manipulating medical equipment for effective patient care</p> <p>2.4 Demonstrate a thorough understanding of basic chemistry principles, including gas laws, acid-base balance and biochemical reactions enabling comprehension of physiological changes occurring within a patient during an emergency situation.</p>	
3. Perform appropriate clinical assessments and provide appropriate interventions as per the advanced emergency medical technician scope of practice.		<p>3.1 Assess and manage patients presenting with various medical and trauma emergencies within the scope of practice.</p> <p>3.2 Detect acute life-threatening medical and/or trauma-related disorders properly based on the applied understanding of the</p>	

## BQA NCQF QUALIFICATION TEMPLATE

	<p>basic pathophysiologies behind common medical and trauma-related disorders.</p> <p>3.3 Make correct decisions regarding treatment, based on and validated by history taking and appropriate patient assessment.</p> <p>3.4 Identify the need for a higher level of clinical competencies correctly.</p> <p>3.5 Identify life support interventions and emergency care for adults, children, infants and neonates and applied in line with the code of practice and protocols of ECT.</p>
4. Use appropriate rescue equipment to safely extricate patients	<p>4.1 Demonstrate competencies in the safe extrication of patients using principles of basic rope rescue, light motor vehicle extrication as well basic firefighting techniques.</p> <p>4.2 Assess patients correctly in a pre-hospital emergency context consistent with the scope of practice of an ECT.</p> <p>4.3 Assess in a manner that is professional and consistent with principles of medical history taking.</p> <p>4.4 Carry out assessments in accordance to accepted medical principles of physical examinations within the ECT scope of practice.</p>
5. Uphold ethical principles, legal obligations, and professional responsibilities in emergency care settings, including patient confidentiality, informed consent, and adherence to regulatory standards.	<p>5.1 Identify medical-legal implications and the importance of accurate record keeping correctly.</p> <p>5.2 Apply ethical principles of beneficence, autonomy and justice, truth-telling, and confidentiality are correctly applied in all contexts.</p> <p>5.3 Maintain confidentiality with the medical ethical practices.</p>

## BQA NCQF QUALIFICATION TEMPLATE

	5.4 Interact with stakeholders with due sensitivity to ethnic, cultural, linguistic, religious and gender diversity.
6. Advocate for patients' rights, promote patient empowerment and engage in patient education to enhance health literacy and self-care practices.	<p>6.1 Promote patient empowerment during patient education in managing critical scenarios within the scope of practice of ECT.</p> <p>6.2 Demonstrate professional relationships which are characterised by mutual respect, cooperation, accountability, rapport, and effective communication.</p> <p>6.3 Demonstrate one's physical and mental health and well-being to work effectively in an emergency care environment.</p> <p>6.4 Carry out consultation with and referral to the health care team when necessary and appropriate.</p>
7. Effectively communicate with patients, their families and other healthcare professionals in high-pressure situations.	<p>7.1 Demonstrate report writing and administration as comprehensive, comprehensible, accurate, relevant, up to date and compliant with organisational requirements.</p> <p>7.2 Demonstrate appropriate language conventions, textual features and styles of recording for specific and workplace purpose.</p> <p>7.3 Carry out a patient handover to other professionals/services correctly in line with local protocols and procedures.</p> <p>7.4 Provide accurate details of the patient information, assessment, and treatment.</p>

## BQA NCQF QUALIFICATION TEMPLATE

SECTION C		QUALIFICATION STRUCTURE			
COMPONENT	TITLE	Credits Per Relevant NCQF Level			Total Credits
		Level [ 5 ]	Level [ 6 ]	Level [ 7 ]	
<b>FUNDAMENTAL COMPONENT</b> <i>Subjects/Courses/ Modules/Units</i>	Fundamentals of Anatomy & Physiology	16			16
	Communications & Study Skills	9			9
	Basic Computer Applications	10			10
	Organisational Behaviour	8			8
	Health Law and Ethics	10			10
	Applied Basic Sciences	12			12
<b>CORE COMPONENT</b> <i>Subjects/Courses/ Modules/Units</i>	Emergency Medical Care I & II		48		48
	Primary Health Care		12		12
	Anatomy and physiology I		16		16
	Health Education & Promotion		10		10
	Pharmacology		12		12
	Clinical Practice I & II		70		70

## BQA NCQF QUALIFICATION TEMPLATE

	High Angle		6		6
	Vehicle Extrication Rescue		6		6
	Basic Fire Rescue		6		6
<b>TOTAL</b>					<b>251</b>
<b>STRANDS/ SPECIALIZATION</b>	<i>Subjects/ Courses/ Modules/Units</i>	<b>Credits Per Relevant NCQF Level</b>			<b>Total Credits</b>
		<b>Level [ 5 ]</b>	<b>Level [ 6 ]</b>	<b>Level [ 7 ]</b>	
<b>Electives</b>					

## BQA NCQF QUALIFICATION TEMPLATE

### SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL

#### TOTAL CREDITS PER NCQF LEVEL

NCQF Level	Credit Value
Level 5	65
Level 6	186
<b>Total</b>	<b>251</b>

#### Rules of Combination:

*(Please Indicate combinations for the different constituent components of the qualification)*

Fundamental Components: 65

Core Components: 186

Electives: 0

**Total Credits: 251**



### **ASSESSMENT ARRANGEMENTS**

Modules offered over a semester will be assessed using formative at 50% and summative at 50% whereas year modules will be assessed using formative at 60% and summative at 40%.

### **MODERATION ARRANGEMENTS**

The following shall apply for both internal and external moderation.

Internal moderation requirements and external moderation shall be carried out in accordance with ETP moderation policy and BQA requirements.

Professional registration and accreditation

All assessors and moderators must be registered and accredited with BQA

### **RECOGNITION OF PRIOR LEARNING**

RPL policies will be applicable in gaining credits towards graduation.

### **CREDIT ACCUMULATION AND TRANSFER**

CAT policies will be applicable in gaining credits towards graduation.

### **PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)**

Learning Pathways

**Horizontal Articulation (related qualifications of similar level that graduates may consider)**

8. Diploma in Nursing
  - Diploma in Health and Social Care

**Vertical Articulation (qualifications to which the holder may progress to)**

- Bachelor's Degree in Emergency Medical Care
- Bachelors in Nursing Science

#### **Employment**

- Paramedics
- Emergency Medical Technician (EMT)
- Aviation medical assistant

## BQA NCQF QUALIFICATION TEMPLATE

- Emergency Medical Services (EMS) Supervisors
- Emergency Rescue Officers in Mining
- Clinical demonstrators and preceptors

### QUALIFICATION AWARD AND CERTIFICATION

Candidates must meet the minimum standards to be awarded the qualification.

For a learner to qualify for the award of Diploma in Emergency Care Technology Programme, they must have achieved a minimum of 251 credits according to the rules of combination. Successful candidates will be issued with a certificate indicating the award.

### SUMMARY OF REGIONAL AND INTERNATIONAL COMPARABILITY

#### Similarities:

**University of Johannesburg, South Africa-** The proposed qualification is similar to the qualification from UJ with the same duration of years (2 yrs.) and the credit value of 252. There are modules offered at UJ also like the proposed qualification Emergency Medical Care I (Theory and Practical), Chemistry, Anatomy and Physiology, Motor Vehicle Rescue, High Angle, Fire Rescue and clinical Practice. The assessments offered at UJ is also similar to the proposed qualification as they are informed by the module outcomes. The various types of assessments at UJ which are similar to the proposed qualifications are theory tests, OSCEs and simulations. The horizontal and vertical articulation of the proposed qualification is similar to the one offered by UJ Horizontally as an Advanced Certificate in Technical Rescue Operations, at NQF Level 6 and vertically Professional Bachelor Degrees in Emergency Medical Care, at NQF Level 8. The employment pathways also are similar as paramedics in both public and private sectors.

**Victoria University, Melbourne, Australia** proposed qualification is similar to the qualification offered at VU in terms of the similar learning outcomes such as: Providing life support, mastering appropriate interventions for the crucial time before the patient gets to the hospital, Demonstrate skills in emergency care responses e.g. providing critical life support, infection prevention and control procedures, management of major incident scenes, delivering clinical care, health professional and health system engagement, safe work practices, Demonstrate effective communication skills through patient communication skills, including analysing and responding to client health information communicating complex situations to support health care, working with culturally diverse patients. The modules which are similar to the proposed qualifications are Ethics Legal laws, and Communication skills. The assessments conducted at VU are also assessing the learning outcomes through work-based practical experience and clinical experience.

#### Differences:

**University of Johannesburg, South Africa-** There are some Learning outcomes for the UJ qualification which are different from the proposed qualification like articulating an understanding of the South African Health Care System. This qualification also consists of modules that are not offered by the University of Johannesburg such as Organisational Behaviour, Health Education & Promotion

## BQA NCQF QUALIFICATION TEMPLATE

and Pharmacology. Credits allocated for Clinical Practice in this qualification are more than the UJ qualification.

**Victoria University, Melbourne, Australia-** The NQCF level for the proposed qualification is different to the VU qualification as VU follows the Australian Qualification Framework and the Diploma is at level 5 of AQF level. The modules which are different from the proposed qualification and are offered by VU are Work with diverse people, Physical Health status, Safe work practices, Responsiveness and Management of a scene. The rules of combination for VU are also different from the proposed qualification. To be awarded the Diploma of Emergency Care, a total of Seventeen (17) units of competency must be achieved, comprising of \* Nine (9) core units \* Eight (8) elective units, consisting of at least four (4) units from the electives up to four (4) units from the electives or any other current endorsed Training Package or accredited course. This qualification also differs from the proposed qualification in terms of the employment pathways where the learners are employed as Ambulance Transport Attendants (ATA), Patient Transport Officers (PTO) and Ambulance Community Officers (ACO) with Ambulance Victoria (in rural areas).

Generally, the qualification compares well with other institutions in terms of Learning outcomes and modules offered which facilitates easy articulation both horizontally and vertically for the learners into the same qualifications and even the employment pathways like the paramedics. Rescue officers and emergency medical service supervisors identified both regionally and internationally.

Every 5 years

### For Official Use Only:

CODE (ID)			
REGISTRATION STATUS	BQA DECISION NO.	REGISTRATION START DATE	REGISTRATION END DATE
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT	