

**BQA NCQF Qualification Template**

DNCQF.FDMD.GD04

Issue No.: 01

QUALIFICATION SPECIFICATION							SECTION A
<b>QUALIFICATION DEVELOPER</b>	BA ISAGO University						
<b>TITLE</b>	Master of Science in Disaster Management				<b>NCQF LEVEL</b>	9	
<b>FIELD</b>	Health and Social Services		<b>SUB-FIELD</b>	Disaster Management			
New qualification	✓		Review of existing qualification				
<b>SUB-FRAMEWORK</b>	General Education			TVET		Higher Education	✓
<b>QUALIFICATION TYPE</b>	Certificate			Diploma		Bachelor	
	Bachelor Honours			Master	✓	Doctor	
<b>CREDIT VALUE</b>	260						
<b>RATIONALE AND PURPOSE OF THE QUALIFICATION</b>							
<p><b>Rationale:</b></p> <p>Nearly all nations have experienced disasters of some kind, however, their management is indispensable and diverse hence influencing the way communities cope and become resilient in such challenging conditions. Disasters entail serious disruption to human populations, property and the economic resources which usually exceed the ability and capacity to cope using own resources. Coupled with financial cost, disasters have reversed several countries' economic development. With reference to National Disaster Management Office's National Disaster Risk Reduction Strategy of 2013-2018, the type and costs associated with disasters, calls for accentuation of disaster risk reduction at both the national and grassroots levels with strategies and activities contributing towards decreasing disaster risks and the negative impacts of disasters and attainment of sustainable development; hence, the integration of disaster risk reduction into national development plans and human resources development (NDMO, 2013). With the National Policy on Disaster Management (1996) and the National Disaster Risk Management Plan (2009) addressing several major aspects of disaster risk management in Botswana, the emphasis is the need for all implemented strategies to be planned and executed with precision to reduce impacts and costs;</p>							

hence, a need for accurately and relevantly trained personnel on the field of disaster management. This is even echoed by National Development Plan 11 (NDP11) which highlights the need to reduce impacts of disasters through implementation of various disaster risk reduction measures such as the use of a National Disaster Risk Management Plan; sector specific plans addressing epidemics, structural fires, wild land fires, floods and geological hazards; strengthened disaster management committees at all levels; disaster public awareness activities to reach out to the communities and early warning systems as well as risk and vulnerability assessments in disaster prone areas (Ministry of Finance and Development, 2016). Consequently, research and Development managers are listed under code 1223 as top occupations in high demand (HRDC, 2016); therefore, this calls for enhanced skill human capital development with occupation specific qualifications that match the labour market as echoed by the Human Resource Development Council's approach of achieving industry driven oriented personnel (Human Resource Development Council, 2017; Statistics Botswana, 2015).

**Purpose:**

The purpose of this qualification is to equip disaster management candidates with:

1. High level of mastery skills in identifying hazards or threats, assessing and implementing mitigation measures in disaster situations.
2. Advanced knowledge to carry out empirical research on effective measures of disaster management.
3. Innovative, adaptive, impactful skill-aligned modules for managing the hazards, disasters and risks that need to be critically investigated at workplaces and beyond.

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

- A Bachelors Degree (NCQF 7) and/or honors (NCQF 8) in ) in Environmental Science, Risk and Safety Management; Environmental, Health and Safety Management; Emergency and Disaster Management; or any other related field.
- RPL and CAT will be provided for access to the qualification using ETP Policies in line with the National Policies.

QUALIFICATION SPECIFICATION SECTION B	
GRADUATE PROFILE (LEARNING OUTCOMES)	ASSESSMENT CRITERIA
1. Demonstrates a high level of mastery of the field of study or practice and capacity to retrieve, evaluate probable factors influencing exposure to disasters and occurrence of extreme natural events and man-made disasters.	1.1 Identify human activities influencing occurrence of disasters. 1.2 Critique how the environment influences exposure to disasters. 1.3 Analyze how disasters influence health. 1.4 Critique the status of emergency preparedness and response to disasters in Botswana and beyond.
2. Assess the dynamics of disaster management cycle/phases in order to bridge a gap between theory and practices of disaster risk reduction	2.1 Ascertain extent of disaster preparedness of nation on disasters. 2.2 Evaluate disaster reduction programmes for mitigation. 2.3 Develop methodical capacity to manage risk; review, implement and, respond to disasters through producing emergency and resilience plans.
3. Demonstrate the ability to interrogate and review the legislation on emergency, hazards and disaster management.	3.1 Design viable environmental health codes to yield reduced exposure to hazards and disasters. 3.2 Investigate the factors influencing non-compliance to legislation promoting safety in times of disasters. 3.3 Formulate policies that guide towards mitigating the impacts of disasters.
4. Develop risk assessment methodologies and management strategies to complex and dynamic nature of disasters and other environmental issues.	4.1 Design risk management strategies. 4.2 Employ the Hierarchy of Control measures as the universal approach to managing hazards and disasters.

	4.3 Develop theories, paradigms and frameworks to mitigate the impacts posed by complexity and randomness of disasters.
5. Apply geographical information systems (GIS) in mapping, analysis and presentation of disasters distribution and projections.	<p>5.1 Undertake an in-depth critical analysis of distribution of disasters</p> <p>5.2 Map out and present the prevalent and anticipated disasters to identify trends and patterns of disasters' occurrence</p> <p>5.3 Review historical data and apply GIS to predict disaster's occurrence and use it for preparedness.</p> <p>5.4 Apply GIS based technical skills in planning and managing disasters</p>
6. Design intervention strategies mitigating the impact, reduction and eradication of man-made and natural hazards and disasters.	<p>6.1 Identify humanitarian bodies mitigating the impacts of disasters to the communities</p> <p>6.2 Engage in capacity building (stakeholder consultation and engagement) and public education addressing effects and impacts of natural and man-made hazards and disasters.</p> <p>6.3 Monitor and inspect implementation of intervention strategies aimed at managing the disasters.</p> <p>6.4 Facilitate crowd funding processes aimed for humanitarian projects.</p> <p>6.5 Develop strategies that integrate media contribution and communication on disaster management.</p>
7. Demonstrate advanced knowledge to conduct research and communicate the results of a scientific study in a written and oral format	<p>7.1 Participate in academic research to contribute to the body of knowledge about the (but not limited to) causes, effects, spread and or management of disasters.</p> <p>7.2 Analyze and evaluate the results from</p>

	<p>independent research project.</p> <p>7.3 Present the findings through a dissertation/ thesis and an oral presentation to examiners.</p> <p>7.4 Present the findings to appropriate stakeholders.</p>
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<b>QUALIFICATION STRUCTURE</b>			
			<b>SECTION C</b>
<b>FUNDAMENTAL COMPONENT</b> Subjects / Units / Modules /Courses	<b>Title</b>	<b>Level</b>	<b>Credits</b>
	Research Methods	9	15
<b>CORE COMPONENT</b> Subjects / Units / Modules /Courses			
	Hazards, Disasters and the Emergency Management System	9	15
	Disaster Vulnerability and Risk Management	9	15
	Disaster Education	8	15
	Media Management and Disaster Risk Communication	9	15
	Earth Sciences and Natural Disasters	9	15
	Technological Disasters	9	15
	Business Continuity Management	9	15
	Geographical Information Systems for Disaster Risk Management	9	15
	Emergency Planning, Exercise Design & Evaluation	9	15
	Public Health Issues in Disaster Management	9	15
	Disaster Risk and Emergency Management Regulation	9	15
	Dissertation	9	80
<b>ELECTIVE/OPTIONAL COMPONENT</b> Subjects / Units / Modules /Courses			

**Rules of combinations, Credit distribution (where applicable):**

Level 8 consists of 15 credits

Level 9 consists of 245 credits

**Total Credits=260**

For award of this qualification, all modules should be completed, leading to a total of 260 credits, where 15 credits are from the fundamental component and 245 credits from the core component.

**ASSESSMENT AND MODERATION ARRANGEMENTS**

**ASSESSMENT**

**Formative Assessment**

The weighting of formative assessment is 60 % of the Final assessment mark.

**Summative Assessment**

The weighting of summative assessment is 40 % of the Final assessment mark.

**MODERATION**

- There will be internal and external moderation for the qualification.
- Assessors and moderators must be BQA registered and accredited.
- Both internal and external moderation will be done in accordance with the moderation policy of the institution which is aligned with national BQA policies.

**RECOGNITION OF PRIOR LEARNING (if applicable)**

Recognition of Prior Learning (RPL) and Credit Accumulation Transfer (CAT) will be applicable for consideration for award in this qualification.

**PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)**

**Learning Pathways**

***Horizontal Articulation:***

- Master's Degree in Safety and Risk Management;
- Master's Degree in Occupational Health and Safety Management;
- Master's Degree in Environmental Management;
- Master's Degree in Environmental Science.

***Vertical Articulation:***

- Doctor of Philosophy in Disaster Management;
- Doctor of Philosophy in Risk and Disaster Reduction;
- Doctor of Philosophy in Environmental Management;
- Doctor of Philosophy in Environmental Science.

**Employment Pathways**

- Local Government Disaster Management Officer;
- Disaster Management Specialist/Practitioner;
- Humanitarian Manager;
- Operations Risk Officer;
- Hazardous Materials and Emergency Manager;
- Risk Control Manager;
- Loss Control Manager;
- Trainers in Disasters and Safety Management;
- Health and Safety Practitioner/Consultant;
- Lecturer / Academic Officer;
- Disaster and Safety Management Researcher
- Disaster and Emergency Policy Analyst.

**QUALIFICATION AWARD AND CERTIFICATION**

Candidates must acquire a minimum of 260 credits, to be awarded with a Master of Science in Disaster Management. Candidates meeting the prescribed requirements will be awarded the certificate in accordance with the qualification composition rules and applicable policies. To be eligible for the award, candidates must have successfully completed all fundamental and core modules and passed examinations in accordance with regulations set by the university.

**REGIONAL AND INTERNATIONAL COMPARABILITY**

The proposed Master of Science in Disaster Management has been benchmarked against the following qualifications offered by various institutions regionally (Pretoria) and internationally (Cardiff and Bournemouth) and it compares well

### **International**

**University of South Wales in Cardiff in the United Kingdom** offers a one year 180 credits **MSc Hazard and Disaster Management** which balances the development of academic knowledge with the development of technical and or vocational skills, interpersonal skills, management expertise, field preparation, and your experiences. It equips learners for a wide range of careers related to disaster risk management for environmental and other hazards. This qualification is reportedly to provide environmental hazards and disaster management, pre-event mitigation, disaster risk reduction, emergency planning, multi-agency disaster response, and disaster relief, along with the development of technical and interpersonal skills. At graduate level it ensures that learners critically assess the effectiveness of existing disaster risk management techniques, in order to evaluate good practice and apply it to new situations. The qualification is enriched with experiences for learners and provides the opportunity for additional extended field or work placements.

**Bournemouth University in United Kingdom** offers **Msc in Disaster Management** at NQF level 7 with credit value of 180. The degree offers a systematic understanding of a National and International Disaster Management Organizations. It also offers a critical awareness of current issues in both Disaster Management and Risk Reduction. The qualification will equip learners with a systematic understanding of national and international disaster management organisations, their external context and how they are managed. Furthermore, a critical awareness of current issues in both disaster management and risk reduction which is informed by leading edge research and practice in the field is enhanced. Learners will be able to critically evaluate the core disciplines and methods of working in the disaster management arena, and be able to apply these in practical contexts.

### **Regional**

**University of Pretoria in South Africa** offers **Masters in Disaster Management** at NQF level 9. The degree offers training in a holistic approach towards Disaster Management to enable them to manage all kinds of disaster by implementing pro-active disaster management strategies in terms of relevant legislation, policies and directives. This qualification is aimed at providing human capital such as disaster management practitioners or those who may have future disaster management responsibilities. It offers training in a holistic approach towards disaster management to enable them to manage all kinds of disasters by implementing proactive disaster management strategies in terms of relevant legislation, policies and directives. It equips learners with efficiency in coordinating relief and recovery activities or events.



The MSc in Disaster Management is offered by a number of Universities internationally and regionally and the comparability was done at both international and regional levels.. The modules offered by university of Pretoria in South Africa and Bournemouth University in United Kingdom are comparable by content with this proposed MSc in Disaster Management. However, MSc in Disaster Management is classified under NQF level 7 due to varying countries standardization; however, measuring similar level learning outcomes, which is different from the proposed qualification and University of Pretoria qualification which fall under NQF level 9. There is a significant correspondence and overlap of modules offered by these qualifications from these other institutions.

#### **REVIEW PERIOD**

The qualification will be reviewed every 5 years.

## **References**

1. Human Resource Development Council. (2017). *National and Sector Human Development Planning Information Booklet*. Gaborone
2. Ministry of Finance and Development. (2016). *National Development Plan 11: April 2017 – March 2023*, Vol 1. Gaborone, Botswana.
3. Human Resource Development Council. (2016). Top Occupations in Demand.  
<https://www.hrdc.org.bw/sites/default/files/Top%20Occupations%20Jan%202017.pdf>
4. Statistics Botswana (2015) 2008 Botswana Standard Classification of Occupations - December 2015.  
<http://www.statsbots.org.bw/sites/default/files/documents/2008%20Botswana%20Standard%20Classification%20of%20Occupations.pdf.pdf>