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SECTION A: QUALIFICATION DETAILS														
QUALIFICATION DEVELOPER(S)			Colle	ge of	Fire a	nd Saf	fety (CO	FS)						
TITLE	Diploma	in Fire S	Safety								NCQ	F LEVEI	_	6
FIELD	Health a		SUB-H	FIELD	•		Fire Saf	ety			CREI	DIT VAL	UE	248
New Qualification			✓ Review of E			Existing	Qualifica	ation						
SUB-FRAMEWORK General		al Educ	l Education TVET			Highe	er Educa	tion	✓					
QUALIFICATIO N TYPE	Certific ate	1		1	II	IV		V		Dip	oloma	<b>~</b>	Bacl or	
	Bache	elor Hond	ours	urs Post Graduat			ate Cer	tifica	ificate Post Graduate Diploma			nte		
			Maste	rs		Doctorate/ PhD								

#### RATIONALE AND PURPOSE OF THE QUALIFICATION

## RATIONALE:

Fire Safety which is a branch of Health and Safety is currently found as course outside the shores of our Country. There is a definite need for our fire teams and the public to receive pertinent qualifications in this field of study. The President of Botswana always at every opportunity speaks of the economy being turned away from mineral based to a knowledge-based economy. Educating Fire teams and public on Fire Safety procedures can help reduce costs and death/ injuries accruing from fire incidents. This also fosters among employees an attitude and culture of fire prevention and safety which in turn helps reduces the potential of a fire outbreaks. No matter how small or large a company is, workers in



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all fields of industry face workplace fire risks that can threaten their life and properties. Providing awareness on fire safety procedures to the laymen as well as the fire service employees is just what the Country needs. Safety makes good business, even our tourists confidence can be boosted by the knowledge that this course aims to provide. The modules in the qualification such as fire safety Audits, Fire technology, Practical Firemanship, Discipline & Motivation, Fire safety/prevention, Disaster management, building control standards, International Fire codes among others will equip the learners to pursue a workplace environment safe from fire hazards and by extension the public at large.

The field of Fire Safety is still at infancy stages in Botswana and very crucial in developing countries such as Botswana. The activities of Fire safety professionals play a major role in the protection of different types of organisations all over the Country. Training is a key element in the prevention of workplace incidents. When educated on Fire safety procedures, participants will know how to prevent fire incidents in the workplace and will also learn how to respond efficiently when presented with a dangerous situation. Another benefit of Fire safety training at Diploma level is geared at providing the requisite leadership for fire teams which in turn augurs well for the overall safety of the public at large. The deployment of Fire safety officers in different organisations will ensure a reduction in accident and incident rates, which reflects favorably on the organization. Safety training is also important because it provides a way for companies to document proof that such training has occurred, protecting it from potential lawsuits involving injuries.

Vision 2036 recognizes education and skills development as the basis for human resource development. Hence the type of qualification on Fire Safety is aligned to the needs of the economy and business. The qualification is also supported by the recommendations of the Government Paper No. 37 of 2008: "Towards a Knowledge Society", Tertiary Education Policy, as approved by the National Assembly on the (2008, pg. 10). It also supports the skills training and development component of the Life Cycle Model of the NHRD Strategy (2009). Perusal of priority skills and employment article (Human Resource Development Council of Botswana [HRDC], 2018), specifically include Fire fighters with technical skills in First aid and fire rescue in the list of occupations in demand for Botswana (p.9).

The market need analysis which was conducted among potential trainees and industry stakeholders helped to identify the demand a qualification in Fire Safety hence this qualification. The responses from the survey were



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positive with aspiration and conviction that the qualification was contemporary, needed, and sustainable. The signification of the qualification was supported by the respondents during stakeholder consultation for assessment from the industry. The respondents acknowledged the need for a qualification in fire safety at a Diploma level as they are no such qualification in Botswana. The cited the fact that the qualification is important since it will equip workers on how to recognize fire hazards, conduct safety risk assessment, prevent a workplace fire, and respond to fire if it occurs

#### PURPOSE:

## **Purpose of the Qualification**

This qualification is to equip students with skills and knowledge to:

- Assess current occupational health and safety management issues.
- Conduct a variety of safety and occupational health programmes in order to protect personnel,
   Equipment, production, and the workplace environment.
- Carry out fire risk assessment and risk supervision.
- Execute accidental and safety procedures in the workplace Supervise fire prevention activities.

## ENTRY REQUIREMENTS (including access and inclusion)

- a) Certificate IV, NCQF level 4 or equivalent.
- b) Applicants who do not meet the above criteria but possess relevant industry experience may be considered through Recognition of Prior Learning (RPL) and Credit Accumulation and Transfer (CAT) policies for access. This consideration will be done following guidelines of the ETP which are aligned with BQA/ National policies.



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SECTION B QUALIFICAT	QUALIFICATION SPECIFICATION				
GRADUATE PROFILE (LEARNING OUTCOMES)	ASSESSMENT CRITERIA				
LO 1  Demonstrate general Practical Fireman ship procedures.	<ol> <li>Apply Fire safety policies and procedures to workplace.</li> <li>Illustrate proper placement of Fire prevention &amp; safety policies and procedures in the workplace.</li> <li>Identify applicable Building Control regulations for specific industries</li> <li>identify general Fire Equipment knowledge</li> <li>Demonstrate the use of fire ground communication system.</li> <li>Accurately detail basic fire drill procedure.</li> </ol>				
LO 2:	2.1 Suggest relevant principles for Occupational Fire				
Apply principles of Occupational Fire Safety and	Safety and fire prevention management.				
fire prevention management	2.2 Describe the role of management as a tool of				
	fire prevention.				
	2.2 Engage employees in devising fire prevention measures in the organisation.				
	2.4 Realise the link between local fire service and				
	workplace fire prevention team.				
	2.5 Detail workplace fire audits and Inspections				
	Procedure.				



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LO 3	3.1 Carry out and recommend procedures and			
Identify and assess complex and unpredictable risks and hazards in the workplace and recommend remedial actions	process to determine and mitigate unpredictable risks and hazards in the workplace 3.2 Assess building design and installation to determine			
	for possible fire hazards.			
	3.3 Assess faults in mixed fire installations and provide report for correction of faults.			
LO4	4.1 Select and apply relevant standards for fire detection			
Apply Fire Safety Leadership theories in the	in the workplace.			
workplace.	4.2 Execute Fire crews' management strategies in			
	firefighting.			
	4.3 Select and apply relevant management strategies for			
	promoting discipline in the workplace			
	4.4 Apply relevant motivational theories in order to create a dedicated cadre of firefighter in the workplace.			
	4.5 Conduct the process of PTS Debriefing			
	4.6 Carry out Special Incident Command in order to instil			
	discipline in the firefighters			
LO 5	5.1 Execute and explain maintenance process of			
Demonstrate the use of Fire Technology such as	various fire equipment systematically.			
sprinklers, alarms, and fire suppression systems	5.2 State and demonstrate the use of sprinklers and			
	alarms in fire protection and fire management			



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	5.3 Demonstrate the use of sprinklers in a fire
	simulated incident
LO 6	6.1 Build up and detail an internal audit team
Lead audit teams, compile up-to-standard audits	6.2 Responsibly lead audit teams to produce
reports and defend them before management	up-to- date audit reports
	6.3 Present and defend audit reports.
LO 7	7.1 Provide counsel on the dangers of possessing
Demonstrate the need of observing rules and	drugs/Alcohol beverages in a workplace
regulations in a workplace.	7.2 Determine problems associated with unauthorized
	possession of duplicate Keys/badges or cards.
	7.3 Demonstrate to the workforce the necessity of
	observing rules and regulations in the workplace with
	respect to: Individual safety, Personal rights, and Fire
	team's general safety.
LO 8;	8.1 Design and demonstrate Fire risk management
Execute fire prevention procedures.	procedures as a fire prevention measure
	8.2 Execute and apply Fire risk assessment
	procedures to work processes
	8.3 Implement procedures for evacuation
LO 9	9.1 Carry out need assessment on fire safety training
Execute Fire Safety Training.	9.2 Design and develop training programme on fire
	safety



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	9.3	Deliver professional (workplace)training on fire
		safety
	9.4	Evaluate and recommend improvements training
		on fire safety
LO 10	10.1	Demonstrate various cause determination
Execute Fire Investigation and present a report.		methods in fire investigation
	10.2	Demonstrate steps undertaken in fire scene
		reconstruction
	10.3	Demonstrate in a fire simulated environment the
		methods of scene preservation
	10.4	Write a detailed fire investigation report
	10.5	Present a fire incident report to an audience
LO 11	11.1 S	Set up a Health and Safety structure at a workplace
Implement a positive health and safety culture in		and give roles to such.
the workplace	11.2	Use relevant methods to identify the indicators of
		health and safety performance in a specific
		workplace.
	11.3	Measure fire and safety compliance against
		applicable rules and procedures for promoting a
		health and safety culture.
	11.4	Apply relevant models to identify and assess
		factors that promote negative work culture and



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recommend solutions for promoting positive work culture.

SECTION C	UALIFICATION STRUCTURE				
COMPONENT	TITLE	Credits Per Relevant NCQF Level  Mo		Total  (Per Subject/  Course/  Module/  Units)	
		Level [ 5]	Level [6]	Level [7]	
FUNDAMENTAL COMPONENT	Introduction to office systems & procedures	10			10
Subjects/ Courses/ Modules/Units	Human Resource Management	10			10
CORE COMPONENT	Fire Investigation		12		12
Subjects/Courses/	Fire Safety Legislation		12		12
Modules/Units	Perusing Building plans		12		12
	Building Construction		12		12
	Fire Safety Principles and Practice		12		12



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Fire Service Science	12		12
Fire Safety Standards & Audit	12		12
Fire Service Leadership	12		12
Emergency Medical Care	12		12
Disaster Management	12		12
Incident Command	12		12
Fire Suppression Technology	12		12
Instructional techniques	12		12
Project (Fire Prevention)	12		12
Health and Safety Management	12		12
Fire Prevention and Management	12		12
Introduction to ICT		12	12
Aviation Fire Safety	 12		12



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ELECTIVE/	Fire Fighter 1		12	12
OPTIONAL COMPONENT	Any course from other divisions		12	12
Subjects/Courses/ Modules/Units	UIVISIONS			



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

TOTAL CREDITS PER NCQF LEVEL			
NCQF Level	Credit Value		
Level 5	20		
Level 6	216		
Level 7	12		
TOTAL CREDITS	248		

## Rules of Combination:

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

## **Credits Distribution**

Level 5 consists of 20 credits

Level 6 consists of 216 credits

Level 7 consists of 12 credits

Total Credits: 248 Credits

The credits combination for this qualification is from 20 of fundamental components, 216 core components and the remaining 12 is from the elective components where candidates would choose one (1) module.



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## ASSESSMENT ARRANGEMENTS

For each module, an Assessment for learning (AFL) strategy will be used. This approach to teaching and learning creates feedback which is then used to improve students' performance. Students become more involved in the learning process and from this gain confidence in what they are expected to learn and to what standard. Criterion-referenced assessment will be preferred because it seeks to assess a learner's performance independent of the performance of others doing identical tasks and expresses selected criteria dichotomously. Norm-referenced assessment will be used to enable value judgements to be embedded in the learning encounter

## **MODERATION ARRANGEMENTS**

For formative Assessment learners are continuously assessed through internal assessment which constitutes 50% of the overall grade for all modules.

For Summative assessment Integrated assessment, focusing on the achievement of the exit-level outcomes, will be done by means of a written examination amongst other forms of assessment at the end of every module. The summative assessment will constitute 50%.

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-line with the moderation policy of the Institution

#### RECOGNITION OF PRIOR LEARNING

Candidates may submit evidence of prior learning and current competence and/or undergo appropriate forms of RPL assessment for the award of credits towards the qualification in accordance with applicable RPL policies and relevant national-level policy and legislative framework. Implementation of RPL shall also be



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consistent with requirements, if any, prescribed for the field or sub-field of study by relevant national, regional, or international professional

#### CREDIT ACCUMULATION AND TRANSFER

On application each module/course from a registered and accredited higher education institution is assessed per Botswana Qualifications Authority (BQA) requirements for credit accumulation and transfer (CAT) in terms of module content and outcomes, including critical cross field outcomes, topics, alignment, assessment NCQF levels, exit level outcomes and level descriptors to ascertain whether credits can/cannot be applied for such completed modules

# PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

#### LEARNING PATHWAYS

#### **Horizontal Articulation:**

Diploma in Health and Safety

Diploma in Fire and Hazard Management

Diploma in Fire Safety and Health Management

#### **Vertical Articulation:**

Bachelors in Fire Safety

Bachelor's in health and Safety

Bachelor of Science in Fire Safety and Investigation

## **Employment Pathways**

The following are the employment pathways for a graduate who has successfully completed this qualification:

- Fire Safety supervisor or coordinator at a start-up.
- Safety supervisor or coordinator in the health and safety sectors



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- Working in Council/Mining Fire Department in a management position.
- Self-employed Consultant embarking Fire health and safety operations.
- Fire Suppression technician potential

#### QUALIFICATION AWARD AND CERTIFICATION

Minimum standards of achievement for the award of the qualification

A candidate is required to achieve the stipulated total credits of 248 inclusive of the fundamental, core and elective components, to be awarded a Diploma in Fire Safety qualification.

## Certification

certificate will be awarded to candidates meeting prescribed requirements of the Diploma in Fire Safety qualification

#### REGIONAL AND INTERNATIONAL COMPARABILITY

Fire Safety Qualification was benchmarked with similar qualifications, Institute of Fire Engineering (UK) and similar qualification International College of Fire and Safety (India). The content covered and the duration of the qualification is easily comparable with other similar qualifications. Similar qualification is offered at international institutions

## Summary of Similarities and Differences Observed

This qualification compares well with The Institute of Fire Engineers (SA) as well as Institute of Fire Engineers (IFE-UK) as well as International College of Fire and Safety (Indian) in terms of basic content coverage such



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as Fire Prevention and Management, Fire Safety Principles and Practice Fire Service Science, Fire Safety Standards & Audit, Fire Investigation and Fire Safety Legislation.

The qualification is also similar with Institute of Fire Engineers (IFE-UK) in terms of duration which is 2 year

The differences are in the terms of assessment the IFE qualifications in each unit are assessed by an examination of three hours. Examination papers comprise eight questions; candidates will need to select six questions from a choice of eight whereas this one is assessed on all modules

# Comparability and articulation of the proposed qualification with the ones examined

Fire Safety Qualification was benchmarked with similar qualifications, Institute of Fire Engineering (UK) and similar qualification International College of Fire and Safety (India). The content covered and the duration of the qualification is easily comparable with other similar qualifications. Similar qualification is offered at international institutions

## REVIEW PERIOD

This qualification will be reviewed in a period 5 years upon registration.