

Document No.	DNCQF.P02.GD01
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Effective Date	27.01.2021
	Issue No.

SECTION A: QUALIFICATION DETAILS														
QUALIFICATION	DEVELO	PER (S)	Limko	nkokwing University of Creative Technology										
TITLE	Certifica	Certificate V In Construction Management NCQF LEVEL				5								
FIELD	Physical Planning and Construction  SUB-FIELD Construction Management				CREDIT VALUE		130							
New Qualification	New Qualification ✓ Review of Existing Qualification													
SUB-FRAMEWOR	RK	General	l Education				TVET		<b>✓</b>		Higher Education			
QUALIFICATIO N TYPE	Certifica	te l	11		III		IV	V	<b>\</b>	L	Diplo ma	$\sim$	Bachelor	
	Bachelor Honours Po			Post (	st Graduate Certificate			Post Graduate Diploma						
		٨	Masters Doc			ctorate/ PhD								

# RATIONALE AND PURPOSE OF THE QUALIFICATION

## RATIONALE:

The construction industry in Botswana has had a phenomenal growth, particularly in the last two decades. As a result, it has contributed significantly to the socio-economic development of Botswana. However, it has and still experiences some challenges; among them, human resource development, capacity development, and lack of competitiveness for citizen firms. The government continues to be its major client, implying that its workload depends mainly on government policies and direction. The supply side continues to be dominated by foreign firms with local construction firms not being able to compete at the same level, particularly for major projects.

(A publication on the "Challenges Facing the Construction Industry: A Botswana Perspective

Third Dimension Consulting", by Palalani K. (2000) Gaborone, Botswana.)



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According to the Human Resource Development Committee priority skills and employment trends (pg.2) 2019 the forecast for top occupations in Botswana shows that there is still a deficit of skilled personnel in the construction industry and is expected to continue until the year 2028.

Furthermore, Construction Industry is among the disciplines with demand for technical and soft skills in Botswana. (HRDC priority skills and employment trends: 2019.)

## **PURPOSE:**

The purpose of this qualification is to produce graduates with broad technical knowledge, skills and competences to:

- Facilitate human resource management in a construction project.
- Implement risk management strategies for construction projects.
- Manage quality control process during projects implementation.
- Apply health and safety principles to achieve a sustainable on-site work environment.
- Prepare cost estimates, budgets schedule, and work timetables for construction project.

# ENTRY REQUIREMENTS (including access and inclusion)

Access and inclusion measures have been created and considered in this qualification to allow fair and equal entry requirements for learners from a wide spectrum of learning. The qualification admits learners from any construction field regardless of their age, gender, disability or learning difficulty.

- 1. Certificate IV, NCQF level 4 or equivalent.
- 2. Access through Credit Accumulation and Transfer and Recognition of Prior Learning will be done in accordance with institutional and national policies on CAT and RPL.



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SECTION B QUALIFICAT	TION SPECIFICATION				
GRADUATE PROFILE (LEARNING OUTCOMES)	ASSESSMENT CRITERIA				
3.1 Demonstrate skills to facilitate human resource management in a construction project.	<ul> <li>3.1.1 Demonstrate knowledge on interpersonal skills.</li> <li>3.1.2 Identify role specification of the team members.</li> <li>3.1.3 Produce a workforce planning for analysing and forecasting workforce needs.</li> <li>3.1.4 Recruit and select temporary and permanent staff as required.</li> <li>3.1.5 Manage employee payroll, benefits, and compensation.</li> <li>3.1.6 Evaluate performance in the workplace.</li> <li>3.1.7 Manage employee relations.</li> </ul>				
3.2 Implement risk management strategies for construction projects.	<ul> <li>3.2.1 Make contingency plans for the residual risks.</li> <li>3.2.2 Produce risk management plan.</li> <li>3.2.3 Identify current and emerging risks.</li> <li>3.2.4 Develop risk assessment and measurement systems.</li> <li>3.2.5 Produce policies, practices, and other control mechanisms to manage risks.</li> </ul>				
Critically examine planning, execution, and control problems for construction projects.	<ul><li>3.3.1 Produce a project delivery plan within a goal-oriented environment.</li><li>3.3.2 Minimise risk of project failure.</li><li>3.3.3 Monitor implementation of corrective actions.</li></ul>				



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3.4 Manage quality control process during projects implementation.	<ul> <li>3.4.1 Demonstrate knowledge of the theories, principles and processes involved in quality management.</li> <li>3.4.2 Apply various buildings codes and standards.</li> <li>3.4.3 Apply quality management best practice in construction in terms of both processes and attitudes.</li> <li>3.4.4 Evaluate the application and benefits of Quality Management within a corporate structure.</li> <li>3.4.5 Interpret case histories and the consequences of</li> </ul>			
	poor- quality practices in construction- based industry			
3.5 Apply the health and safety	<ul><li>3.5.1 Identify key hazards in workplace.</li><li>3.5.2 Design safe practices and procedures in a</li></ul>			
principles to achieve a sustainable on-site work environment.	construction site.  3.5.3 Implement best-in-class standards in health and safety management.  3.5.4 Apply principles behind the derivation of standards for health and environmental protection.  3.5.5 Analyse reports on health and safety issues in the construction industry.  3.5.6 Execute risk assessment programmes in the construction workplace.  3.5.7 Apply knowledge and skills of application of health and safety law in the construction workplace.			



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**3.6** Prepare cost estimates, budgets schedule, and work timetables for construction project.

- 3.6.1 Integrate cost estimation into project management processes and procedures.
- 3.6.2 Apply understanding of the importance of the central role and managing costs throughout a project lifecycle.
- 3.6.3 Apply critical planning, scheduling, and control procedures in projects.
- 3.6.4 Utilize work management techniques such as the Work Breakdown Structure (WBS) the Work Package and the Cost Breakdown Structure (CBS).
- 3.6.5 Produce costs estimates and deal with cost escalations and reductions.
- 3.6.6 Apply the key aspects of managing a project budget effectively.



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SECTION C	QUALIFICATION STRUCTURE					
	TITLE	Credits Pel	Total Credits			
COMPONENT		Level [4]	Level [ 5]	Level [ 6]		
FUNDAMENTAL COMPONENT	Fundamentals of Construction Management	10			10	
Subjects/ Courses/ Modules/Units	Tendering For Construction Work	10			10	
CORE	Project Pricing		12		12	
COMPONENT Subjects/Courses/ Modules/Units	Construction Project Administration		12		12	
	Quality Management			14	14	
	Compliance, Contracts, And Regulation		12		12	
	Implementing Health and Safety, and Environmental Management		12		12	
	Construction Scheduling		12		12	
	Fundamentals of Building Construction		12		12	
	Construction project software. (Microsoft Office)		12		12	



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ELECTIVE/ OPTIONAL COMPONENT	Project Planning	12	
Subjects/Courses/ Modules/Units	Construction Cost Estimating	12	12
(Choose one)			





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SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL			
TOTAL CREDITS PER NCQF LEVEL			
NCQF Level	Credit Value		
4	20		
5	96		
6	14		
TOTAL CREDITS	130		

# Rules of Combination:

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

Fundamental component = 20 credits Level 4

Core component = 98 credits Level 5(84credits) + Level 6 (14 credits)

Elective component = 12 credits Level 5



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## **ASSESSMENT ARRANGEMENTS**

The learners will undergo formative and summative assessments which should be designed by assessors who are accredited by Botswana Qualifications Authority, BQA.

Formative assessment will contribute 60% while summative assessment will contribute 40% towards the final grade.

## **MODERATION ARRANGEMENTS**

There will be internal and external moderation undertaken by moderators registered and accredited by BQA. This will be conducted in reference to the ETP's and national moderation policies and procedures.

## RECOGNITION OF PRIOR LEARNING

There will be provision for awarding of the qualification through Recognition of Prior Learning, RPL in accordance with ETP and National policies on RPL.

## CREDIT ACCUMULATION AND TRANSFER

There will be provision for awarding of the qualification through Credit Accumulation and Transfer, CAT in accordance with ETP and National policy on CAT.

## PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

Related NCQF Level 5 qualifications that graduates may consider are;

- Certificate V in Project Management
- Certificate V in Contract Administration

Vertical Articulation

NCQF Level 6 qualifications to which the holder may progress to include:

- Diploma in Construction Management
- Diploma in Architecture Technology



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## **EMPLOYMENT PATHWAYS**

Graduates of the qualification will be employed as:

- Construction Manager
- Estate Manager
- Fire Risk Assessor
- Site Engineer
- Project Manager
- Project Co-coordinator
- Planning Engineer
- Construction Estimator

## **QUALIFICATION AWARD AND CERTIFICATION**

To qualify for the award and certification of the qualification Certificate V in Construction Management, learners must attain a minimum of 130 credits overall.

A certificate will be awarded to the learner upon successful completion of the qualification.

## REGIONAL AND INTERNATIONAL COMPARABILITY

Certificate V in Construction Management was benchmarked against 3 similar qualifications in South Africa, New Zealand and USA. All the qualifications have a one-year duration to complete as the proposed qualification. The qualifications put more emphasis on managing human resources, developing effective plans for construction projects, managing health and safety in a construction project, tendering process as well as contract documentation. Both the proposed qualification and the benchmarked ones do not dwell too much on the producing construction drawings rather on the interpretation of the construction drawings. The differences noted are in the number of credits for the qualifications with use of different system of credits. All the 4 qualifications offer a different number of modules per semester. The 3 qualifications benchmarked with do not offer electives whereas the proposed one does offer an elective in the last semester. SGB Architecture and SAQA (South Africa) covers the financial aspect in the construction field in their structure whereas the other two qualifications benchmarked with, and the proposed qualification do not cover. Drexel University (USA,



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Philadelphia) qualification is more inclined to the practical part of construction whereas the other two qualifications benchmarked with and the proposed one dwell more into the theoretical aspect of construction.

The proposed qualification offers similar career opportunities as the other three qualifications. The qualification strength is on interpretation of construction drawings which is of paramount importance in the construction industry as well as contract administration.

REVIEW PERIOD		
7		