BQA NCQF QUALIFICATION TEMPLATE

SECTION A:	QUALIFICATION DETAILS													
QUALIFICATION DEVELOPER (S)	BA ISAGO University													
TITLE	Bachelor of Science Honours in Quantity Surveying										**NCQF LEVEL**	8		
STRANDS (where applicable)	N/A													
FIELD	Physical Planning and Construction										**CREDIT VALUE**	600		
SUB FIELD	Building Construction													
New Qualification		Legacy Qualification	✓	Renewal Qualification										
				Registration Code										
SUB-FRAMEWORK	General Education		TVET		Higher Education	✓								
QUALIFICATION TYPE	Certificate	I		II		III		IV		V		Diploma		Bachelor	
	Bachelor Honours	✓	Post Graduate Certificate		Post Graduate Diploma									
	Masters		Doctorate/ PhD											

RATIONALE AND PURPOSE OF THE QUALIFICATION

RATIONALE:

The construction industry is one of the growing sectors of the national economy, which is critical to the country's infrastructural development and economic growth. As a result, the Government of Botswana has over the years prioritized infrastructural projects in areas such as water, energy, tourism, agriculture, education, and health, as envisioned by the National Development Plan (NDP11). Furthermore, the importance of the construction industry is highlighted through Vision 2036, where the country aims to develop a leading and appropriate world-class infrastructure to promote economic diversification and international trade opportunities.

However, despite the Government's effort and commitment to infrastructural developments, there have been cases of poor planning, implementation and monitoring of various construction and

development projects across different sectors. This assertion has been corroborated by the National Development Plan (NDP11), which outlined that project management continues to be a challenge across all sectors of the economy largely due to inadequate coordination, capacity building and lack of appropriate regulatory framework.

To overcome these challenges, there is need for skills training and development in building construction, with a focus on quantity surveying practice, contract management, costing and commercial management in the construction industry. The skills training in this area is supported by the Human Resources Development Council Priority Skills 2023/2024 (HRDC, 2023), which highlight the need for Construction Technologists who are skilled in areas of contract management and procurement, monitoring and evaluation techniques, application of Project Management software & methodologies, as well as work scheduling & stakeholder management.

This qualification is intended to provide prospects with the required knowledge, skills and competencies to work as quantity surveyors and oversee the stages of the design and construction process from onsite up to project completion phase. The qualification covers areas such as construction cost and estimates, tendering, project and risk management, contract administration and law, and construction economics.

PURPOSE: (itemise exit level outcomes)

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

- Prepare estimates and manage costs, tenders and contractual documents of construction projects to ensure cost effective solutions.
- Manage sustainable construction projects from resources planning, project implementation, monitoring and completion and maintenance.
- Monitor construction processes to ensure that appropriate practices are implemented according to contractual obligations, industry standards and environmental legislative requirements.
- Assess and manage project related risks and implement strategies to mitigate risks to ensure project success.
- Contribute to solving construction related problems and propose innovative solutions to the management of projects in the built environment, through research and inquiry.

MINIMUM ENTRY REQUIREMENTS (including access and inclusion)
i. Applicants must have a minimum Certificate IV, NCQF Level 4 (TVET/GE) or equivalent. OR **ii.** Candidates who do not meet the minimum academic qualifications stated above will be considered through Recognition of Prior Learning (RPL) process which shall be administered according to the National RPL Policy. There will also be provision for Credit Accumulation Transfer to the learner in case they transfer from another institution as per National Policy on CAT.

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SECTION B	QUALIFICATION SPECIFICATION
GRADUATE PROFILE (LEARNING OUTCOMES)	**ASSESSMENT CRITERIA**
1. Manage sustainable building and engineering projects from resources planning, project implementation, monitoring and completion.	1.1 Perform a feasibility study to inform decisions in the planning phase of a construction project. 1.2 Prepare construction estimates and resource requirements based on the architectural drawings, engineering estimates, materials required and labour. 1.3 Prepare cost plans, budgets, and bills of quantities based on project specifications and drawings. 1.4 Control project scope according to the set and enhance project deliverables.

	1.5 Monitor construction processes and lifecycle using information technology application software.
2. Implement contemporary construction management practices in relation to building regulations and environmental sustainability standards.	2.1 Assess construction project operations for compliance with contractual obligations and ethical practices. 2.2 Conduct risk and hazard assessment based on the complexities of various construction projects. 2.3 Apply mitigating measures to counteract the risks and impacts associated with construction projects. 2.4 Implement quality assurance and control processes to meet project specifications and industry quality standards. 2.5 Promote adherence to high quality construction standards which are compliant with current legislation and industry regulations. 2.6 Comply with workplace health and safety practices and procedures according to the required standards and current regulations.
3. Monitor procurement and contract administration processes to control costs/finances associated with various types of building projects.	3.1 Assess the legal and regulatory frameworks impacting the procurement and contract administration. 3.2 Estimate project costs using a range of tools and techniques such as value engineering, life-cycle costing. 3.3 Manage the procurement of resources and negotiate effectively with partners to identify cost-saving opportunities available. 3.4 Apply advanced techniques for construction procurement, planning, management and costing of building development.

	3.5 Evaluate procurement pathways and contractual arrangements in terms of clarity, obligations, and risk allocation.
4. Maintain appropriate communication channels and professional relationships with construction projects teams and stakeholders including clients, government agencies, subcontractors, suppliers, planners, etc.	4.1 Establish strong relationships with diverse project stakeholders to achieve construction project goals. 4.2 Communicate effectively with various audiences such as clients and other construction professionals, such as site managers, project managers and site engineers. 4.3 Present technical reports on the status of construction project from both a client and contractor perspective. 4.4 Liaise with key stakeholders to solve construction problems related to planning, control of time and cost within the project cycle. 4.5 Resolve stakeholder disputes and conflicts during planning, managing and implementation of construction projects. 4.6 Comply with professional ethics and procedures relevant to quantity surveying profession during the discharge of professional services.
5. Demonstrate highly specialised knowledge in construction and development projects contract administration and tendering.	5.1 Prepare tender and contract documents in accordance to the building and construction regulations. 5.2 Source contractors and/ or subcontractors to work on construction stages of projects and administer the projects. 5.3 Evaluate tender documents, contracts, and other agreements to identify risks, discrepancies, and potential variations.

	5.4 Negotiate with the contractors to ensure cost-effective solutions during project implementation. 5.5 Recommend solutions to legal problems or disputes related to contractual agreements.
6. Conduct basic research within the context of the built environment to solve complex problem and challenges affecting building design and construction operations.	6.1 Determine various challenges related to the management and implementation of construction projects. 6.2 Apply advanced methods of data collection to gather information on key problems affecting building and engineering projects. 6.3 Analyse data and make meaningful interpretation to organisational challenges in delivering construction projects. 6.4 Recommend contemporary methods and solutions aimed at promoting sustainable construction practices and operations. 6.5 Propose legislative reforms in relation to the quantity surveying professional practice and related construction disciplines.

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SECTION C	QUALIFICATION STRUCTURE					
COMPONENT	TITLE	Credits Per Relevant NCQF Level				Total Credits
		Level [5]	Level [6]	Level [7]	Level [8]	
	Computer Literacy	7				7

FUNDAMENTAL COMPONENT Subjects/ Courses/ Modules/Units	Principles of Economics	12				12
	Commercial Law	12				12
	Principles of Business Management			12		12
	Business Communication		12			12
	Introduction to Occupational Health and Safety Management		12			12
CORE COMPONENT Subjects/Courses/ Modules/Units	Basic Construction Surveying		7			7
	Construction Materials & Techniques 1.1	7				7
	Building Services & Equipment 1.1	7				7
	Construction Drawing		7			7
	Construction Quantities 1			15		15
	Quantity Surveying Practice 1			15		15
	Construction Materials & Techniques 1.2	7				7
	Building Services & Equipment 1.2	7				7
	Information Technology 1			6		6

	Construction Materials & Techniques 2.1			7		7
	Building Services & Equipment 2.1			7		7
	Construction Economics 1			15		15
	Financial Accounting 1	12				12
	Construction Quantities 2			15		15
	Quantity Surveying Practice 2			15		15
	Construction Materials & Techniques 2.2			7		7
	Building Services & Equipment 2.2			7		7
	Financial Mathematics			12		12
	Construction Accounting			7		7
	Information Technology 2			6		6
	Construction Economics 2				17	17
	Construction Quantities 3				17	17
	Quantity Surveying Practice 3				17	17
	Construction Materials & Techniques 3.1			7		7

	Building Services & Equipment 3.1			7		7
	Research Methods			12		12
	Logistics & Purchasing Management			12		12
	Project Management			12		12
	Industrial Attachment				120	120
	Construction Economics 3				17	17
	Construction Quantities 4				17	17
	Quantity Surveying Practice 4			17		17
	Development Appraisal				8	8
	Research Project				30	30
	Information Technology 3			6		6
	Construction Law			12		12
	Professional Practice & Procedure			8		8
	Construction Finance			9		9
STRANDS/ SPECIALIZATION	Subjects/ Courses/ Modules/Units	**Credits Per Relevant NCQF Level**				**Total Credits**
		Level [ ]	**Level [ ]**	**Level [ ]**		

1.					
2.					
Electives					

BOTSWANA Qualifications Authority

SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL	
TOTAL CREDITS PER NCQF LEVEL	
NCQF Level	**Credit Value**
5	71
6	38
7	248
8	243
TOTAL CREDITS	**600**
Rules of Combination: **(Please Indicate combinations for the different constituent components of the qualification)**	
The credit combination for this qualification comprises of 67 credits from fundamental component and 533 credits from the core component. The total credits for the program are 600.	

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BOTSWANA Qualifications Authority

ASSESSMENT ARRANGEMENTS

All assessments which are leading to the award of the qualification should be based on learning outcomes and associated assessment criteria. Assessments will be conducted by Assessors who have been registered with Botswana Qualifications Authority (BQA). The assessments will be as follows:

i. Formative assessment

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

ii. Summative assessment

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

MODERATION ARRANGEMENTS

Assessments will be internally and externally moderated by BQA registered and accredited moderators in line with approved moderation policies.

RECOGNITION OF PRIOR LEARNING

Recognition of Prior Learning (RPL) will be applicable for consideration for award in this qualification.

CREDIT ACCUMULATION AND TRANSFER

Credit Accumulation Transfer (CAT) will be applicable for consideration for award in this qualification.

PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

Learning Pathways

Horizontal articulation

- Bachelor of Science (Hons) in Construction Management
- Bachelor of Science (Hons) in Construction Economics Management
- Bachelor of Science (Hons) in Building
- Bachelor of Science (Hons) in Civil Engineering
- Bachelor of Science (Hons) in Construction Technology

Vertical Articulation

- Master of Science in Quantity Surveying

- Master of Science in Construction Management
- Master of Science in Project Management
- Master of Science in Construction Project Management
- Master of Business Administration Construction & Real Estate
- Master of Land and Property Development Management

Employment Pathways

Graduates of this qualification can be employed as:

- Professional Quantity Surveyor
- Contractor's Quantity Surveyor
- Construction Manager
- Contracts Manager
- Project Administrator
- Property Manager

QUALIFICATION AWARD AND CERTIFICATION

Candidates meeting the prescribed requirements will be awarded the qualification in accordance with the qualification composition rules and applicable policies. To be eligible for the award of the Bachelor of Science Honours in Quantity Surveying, candidates should have obtained a minimum of 600 credits. A certificate will be issued to learners who are awarded the qualification.

SUMMARY OF REGIONAL AND INTERNATIONAL COMPARABILITY

The proposed qualification compares favorably with the following regional and international qualifications:

- Bachelor of Science (Hons) in Quantity Surveying and Commercial Management) – University of South Wales, United Kingdom.
- Bachelor of Science (Hons) in Quantity Surveying – National University of Science and Technology (NUST), Zimbabwe.
- Bachelor of Science (Hons) in Quantity Surveying – Northumbria University, United Kingdom.

Compared with the proposed, all the qualifications compared with are all pecked at level 8, following specific framework adopted by each country (NCQF, NQF RQF). The qualifications are also similar in terms of title, although the qualification for University of South Wales has a double major of Quantity

Surveying and Commercial Management. In addition, all qualifications are aimed at producing graduates who will be able to do costing, timing and managing of construction activities. The qualifications have similar domains such as Construction, Economics, Project Management, Cost/Accounting, Technology and awork placement (industrial attachment) of 1 year. Moreover, all the qualifications use formative and summative form of assessments which includes practical, report writing and projects.

Notable differences are in terms of duration and credits. The proposed qualification run for 5 years with 600 credits while the qualifications compared with run for 4 years. The credits for the University of South Wales are at 500 while for the qualifications of NUST and Northumbria University are at 583 and 480 respectively. The differences in credits and duration for the qualifications are based on the qualification frameworks adopted by each country.

There are common educational and employment pathways amongst all the qualifications. Similarly, as the qualifications compared to, the proposed qualification allows learners to progress into postgraduate qualifications in the field of Built Environment. In terms of employment pathways, all the qualifications aim to produce quantity surveyors who can serve in different areas and organisations.

REVIEW PERIOD
This qualification will be reviewed after 5 years upon registration.

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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**	