BQA NCQF QUALIFICATION TEMPLATE

SECTION A:	QUALIFICATION DETAILS				
QUALIFICATION DEVELOPER (S)	BA ISAGO University				
TITLE	Master of Science in Construction Project Management			**NCQF LEVEL**	09
STRANDS (where applicable)	None				
FIELD	Physical Planning and Construction	**SUB-FIELD**	Building Construction	**CREDIT VALUE**	240

New Qualification	✓	*Legacy Qualification*															
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 year prioritized infrastructural projects in areas such as water, energy, tourism, agriculture, education and health, as envisioned by the National Development Plans. However, despite the government's effort and commitment, there have been cases of construction project failures as a result of poor planning, implementation and monitoring. Some of the most reported cases include incomplete projects, cost escalations, unethical procurement procedures and poor quality of work. All these

occurrences have a devastating effect on the national economy and result in extensive and unsustainable losses for the country. This assertion is supported by a study titled Project Management in Botswana-Challenges Continue (Kgengwenyane, 2016), which indicated that billions of Pula continue to be wasted on poorly executed projects due to lack of project management skills. This is further 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 project management, for professionals operating in various construction related fields, such as architecture, quantity surveying, building technology, real estate and engineering. 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 specialists, who are skilled in contract management, procurement, project management methodologies and stakeholder management.

This qualification is intended to provide prospects with the required competencies and skills needed to manage construction projects from conception to completion. The qualification will cover areas of project planning and scheduling, cost estimation and control, construction law and contracts, risk factors and mitigation.

PURPOSE: (itemise exit level outcomes)

The purpose of this qualification is to produce graduates with advanced knowledge, skills, and competencies to:

i. Lead sustainable construction projects from resources planning, project implementation, monitoring and completion and maintenance.
ii. Manage construction processes to ensure that appropriate practices are implemented according to contractual obligations, industry standards and environmental legislative requirements.
iii. Conduct risk and hazard assessment based on the complexities of various construction projects.
iv. Solve 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 of NCQF Level 7 (Bachelor's Degree) or equivalent.

OR

ii. Candidates who do not meet the minimum academic qualifications stated above will be considered through the 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 in 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 construction projects from resources planning, project implementation, monitoring and completion within the cost, time and quality parameters.	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 for simple to complex projects construction projects. 1.3 Manage procurement processes to control costs in accordance with best practices in construction project management. 1.4 Evaluate the progression of construction projects by applying the principles, practices and tools of construction project management. 1.5 Formulate human resource management strategies to optimize personnel requirements for construction project completion. 1.6 Monitor resources throughout the construction project lifecycle to accomplish construction project goals.

2. Maintain strategic partnerships and working relationships with government agencies, subcontractors, suppliers, planners, quantity surveyors and other stakeholders involved in construction projects.	2.1 Cultivate strong relationships with diverse project stakeholders to achieve construction project goals. 2.2 Present technical reports on the status of construction project from both a client and contractor perspective. 2.3 Liaise with key stakeholders to solve construction problems related to planning, control of time and cost within the project cycle. 2.4 Communicate variances pertain to project cost, schedule, scope, and quality to stakeholders. 4.1 Resolve stakeholder disputes and conflicts during planning, managing and implementation of construction projects.
3. Apply mitigating measures to counteract the risks and impacts associated with construction projects.	3.1 Identify risks and challenges associated with construction projects. 3.2 Conduct risk and hazard assessment based on the complexities of various construction projects. 3.3 Propose contingency plans to mitigate project risks through robust analytical methodology. 3.4 Monitor risk associated with multi-factors affecting the quality, time and cost of construction projects and management of construction. 3.5 Manage project risks to mitigate their impact throughout the construction project lifecycle.
4. Monitor construction processes to ensure that sustainability practices are implemented in accordance with contractual obligations, industry standards and environmental legislative requirements.	4.1 Develop quality assurance and control processes to meet project specifications and industry quality standards. 4.1 Generate contractual and construction documentation for building construction projects.

	4.2 Develop 4.3 Assess construction project operations for compliance with contractual obligations and ethical practices. 4.4 Promote adherence to high quality construction standards which are compliant with current legislation and industry regulations. 4.5 Comply with workplace health and safety practices and procedures which are compliant with current legislation.
5. Conduct specialised research to solve social, economic and environmental issues affecting construction projects.	5.1 Analyse existing data and reports to determine challenges related to the management and implementation of construction projects. 5.2 Apply advanced methods of data collection to gather information on local, national and international challenges affecting construction projects. 5.3 Analyse data and make meaningful interpretation to organisation challenges in delivering construction projects. 5.4 Integrate research findings in a clear and compelling manner, demonstrating effective communication of construction project management insights 5.5 Propose sustainable solutions to the management of projects and continuous improvement of the construction industry

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SECTION C	QUALIFICATION STRUCTURE				
COMPONENT	TITLE	Credits Per Relevant NCQF Level			Total Credits
		Level [7]	Level [8]	Level [9]	
FUNDAMENTAL COMPONENT *Subjects/ Courses/ Modules/Units*	Communication Management			10	10
	Advanced Research Methods			16	16
CORE COMPONENT *Subjects/Courses/ Modules/Units*	Principle of Construction Law			12	12
	Contracts Procurement Negotiations, Management and Administration			12	12
	Advanced Construction, Planning and Management			15	15
	Resources Management			12	12
	Cost Management			15	15
	Fund Management			12	12
	Safety, Health and Construction Environments			12	12
	Construction Theory and Processes			10	10

	Construction Risk Management			12	12
	Construction Time Management			12	12
	Dissertation			80	80
STRANDS/ SPECIALIZATION	*Subjects/ Courses/ Modules/Units*	***Credits Per Relevant NCQF Level***			***Total Credits***
		Level [ ]	***Level [ ]***	***Level [ ]***	
	None				
Electives	Team Development and Management			10	10
	Partnerships, Joint Ventures and Alliancing Management			10	10
	Integrative Studies			10	10

SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL	
TOTAL CREDITS PER NCQF LEVEL	
NCQF Level	***Credit Value***
Level 9	***240 credits***
TOTAL CREDITS	***240***
Rules of Combination: ***(Please Indicate combinations for the different constituent components of the qualification)***	

For award of this qualification, a total of 240 credits should be attained, where 26 credits are from the fundamental component, 204 credits from the core component and 10 credits from the elective component, where candidates are supposed to choose only 1 module.

ASSESSMENT ARRANGEMENTS

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 ARRANGEMENTS

There will be provision for internal and external moderation, conducted by Moderators qualified in construction project management or related field.

RECOGNITION OF PRIOR LEARNING

Recognition of Prior Learning (RPL) and Credit Accumulation Transfer (CAT) will be applicable for consideration for award in this qualification as specified in policies by the Education and Training Provider (ETP) in line with the National RPL policies.

CREDIT ACCUMULATION AND TRANSFER

Credit Accumulation Transfer (CAT) will be applicable for consideration for award in this qualification. as specified in policies by the Education and Training Provider (ETP) in line with the National CAT policies.

PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

Learning Pathways

Vertical Articulation

- Doctor of Philosophy in Construction Management
- Doctor of Philosophy in Building Science

Horizontal articulation

- Master of Science in Quantity Surveying
- Masters in Building Science
- Master of Science in Civil Engineering
- Master of Science Construction Technology
- Master of Science in Real Estate

Employment Pathways

- Construction Manager
- Contracts Manager
- Construction Economist
- Project Manager
- Property Manager
- Project Administrator
- Cost Manager/ Engineer
- Site Manager
- Facility Manager
- Property Developer

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, candidates must have successfully completed all modules and passed examinations in accordance with regulations set by the faculty. Candidates with a minimum of 240 credits will be awarded the Master of Science in Construction Project Management. A certificate will be issued.

SUMMARY OF REGIONAL AND INTERNATIONAL COMPARABILITY

The proposed Master of Science in Construction Project Management has been benchmarked with the following qualifications;

- Master of Science (Building) Construction Project Management- University of the Witwatersrand, South Africa
- Master of Science in Construction Project Management- University of Manchester, England
- Master of Science in Construction Project Management- University of Hong Kong, China

The proposed qualification compares favourably with the above-mentioned qualifications offered by regional and international Universities. The qualification title (MSc in Construction Project Management) is similar amongst all the Universities. However, the University of the Witwatersrand has infused the word “building” in the title of their qualification. All the qualifications are multidisciplinary in nature and develop project management skills and competencies for professionals operating in various constructions related field. The qualifications also have a common goal in terms of capacitating graduates with knowledge, skills and competencies that will enable them plan, manage and deliver quality construction projects on time and within budget.

There are also similarities in terms of the qualification structures, since all qualification have taught modules and a dissertation component. There are also common modules particularly in the area of research methodology, construction planning & management, risk management, occupational health & safety and construction law. However, the existing slight differences in other modules represent the uniqueness of the various institutions.

Based on the qualifications frameworks used by the different countries, there are variations in terms of qualifications credits and duration. The proposed qualification is placed at NCQF level 9 and carries 240 credits, while the qualification offered by University of Manchester carries 180 credits and pitched FHEQ level 7. The differences are also evident on the qualification offered by the University of Hong Kong, which carries 72 credits and pitched at QF Level 6. Despite the variations in levels and credits, the qualification remains comparable to others in terms of scope and intended exit outcomes.
The other variation observed relates to qualification durations. The proposed qualification runs of 2 years on a full time basis, all the other qualifications are offered over 12 months on full time study, with a provision of 2 years for part time studies.

In terms of articulation, the proposed qualification compares favorably with other regional and international qualifications used for benchmarking. Just like the qualifications offered by other Universities, the proposed Master of Science in Construction Project Management allows students to progress and pursue Doctoral degrees (PhD’s) in the area of the built environment such as engineering, building technology, construction management and real estate. In addition all the qualifications prepare candidates for ideal careers in construction project management for private or public sector clients and construction companies.

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**	
REVISION DATE:		**NAME OF PROFESSIONAL BODIES/REGULATORY**	