SECTION A:	QUALIFICATION DETAILS			
QUALIFICATION DEVELOPER (S)	BA ISAGO University			
TITLE	Bachelor of Commerce in Business and Financial Analytics	**NCQF LEVEL**		7
STRANDS (where applicable)	NA			
FIELD	Business, Commerce and Management Studies	**CREDIT VALUE**		480
SUB FIELD	Finance			

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:

Businesses are generating huge amounts of data every day. Globally, businesses generate an estimated 2.5 quintillion bytes of data every day(Cloudweaks, 2015).The massive advancements in computer technologies have improved the way data is stored, managed, and processed. Businesses are looking at ways to harness the data and turn it into actionable insights to aid decision making. They use data analytics to better understand customers, develop new products, reduce operational costs and drive growth (Zwettier et al, 2023). Essentially, businesses are realizing the need to leverage the power of data analytics to remain competitive.

Despite the increasing interest in data analytics and its applications in the business world, a global survey by Mckinsey consulting revealed that *'20% of the companies with a data strategy fail to maximize its potential at scale'* (Miranda, 2018). In Botswana, the low utilization of data analytics is also evident. According to the Data Analytics Assessment report produced by Grant Thornton in 2022, *'87% of respondents representing various industries in Botswana do not have a data analytics strategy in place'.* This implies that majority of businesses in Botswana are not utilizing data analytics and the large amount of data being generated remain untapped. For most businesses, there is a lack of people with specialized data analytics skills and the ability to use and derive value from the use of analytical methods and techniques. This has been one of the key factors hampering successful utilization of data (Ismail, 2018). According to the Human Resources Development Council(HRDC) 2023/2024 Priority Skills List Report, data analytics and data mining skills , which include data engineering, data analysis and business intelligence, are some of the critical human resources skills lacking in the country. This skills gap hampers competitiveness and restricts informed decision-making in local businesses which eventually impedes Botswana's transition to a data-driven economy.

The proposed Bachelor of Commerce in Business and Finance Analytics directly addresses this critical need by equipping students with the expertise to analyze business and financial data, extract actionable insights, and drive informed decision-making, enabling them to fill critical roles as data analysts, financial modelers, or risk analysts in banking, insurance, retail, and other businesses. The qualification blends data analytics skills with in-depth business and finance knowledge, ensuring that graduates not only possess technical skills but also have the ability to diagnose field - specific problems and issues. By empowering businesses with data-driven insights, this qualification contributes to Botswana's Vision 2036. Graduates will fuel innovation and enhance the competitiveness of local businesses and drive the country towards being a data-driven economy, in line with the government's focus on adopting Fourth Industrial Revolution skills and ideals.

PURPOSE: (itemise exit level outcomes)

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

- Analyse the intricate interplay between business operations and data-driven decision-making in the contemporary marketplace.

- Apply strategic insight and acumen to make informed and effective decisions in professional practice

- Extract actionable insights from complex datasets enabling them to identify current trends, optimize performance, and drive sustainable growth across diverse industries.
- Apply financial analysis, data analytics, and business intelligence tools to solve complex business problems.

MINIMUM ENTRY REQUIREMENTS (including access and inclusion)

i. Applicants must have a minimum of 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 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. Apply critical thinking skills to identify business challenges and financial opportunities and develop data-driven solutions to address them effectively.	1.1 Determine relevant business challenges and financial opportunities through critical analysis of data and market trends. 1.2 Assess the implications of identified challenges and opportunities, considering their potential impact on business performance and sustainability. 1.3 Develop data-driven solutions to address identified challenges and capitalize on opportunities, integrating insights from data analysis. 1.4 Align proposed solutions to organizational goals and objectives, considering factors such as mission, vision, and strategic priorities.
2. Utilize predictive models and forecasting techniques to anticipate future trends, risks, and prospects in business and financial environments.	2.1 Select appropriate predictive models and forecasting techniques based on the nature of the data and the specific context of the business and financial environment. 2.2 Conduct thorough data preparation and preprocessing activities to ensure the quality and reliability of input data for predictive modelling and forecasting. 2.3 Conduct scenario analysis and sensitivity testing to assess the robustness of the models and techniques under different assumptions and scenarios, ensuring resilience and adaptability to changing conditions. 2.4 Produce accurate and precise forecasts of future trends, risks, and prospects in the business and financial environment.

		2.5	Develop mitigating tactics to the identified threats and vulnerabilities so as to enhance long-term sustainability in the business.
3.	Analyse business and financial data using statistical analysis tools and software to extract meaningful insights and formulate data-driven solutions that transforms the business.	3.1	Demonstrate proficiency in using statistical analysis tools and software, such as SPSS, SAS, Python libraries to analyse business and financial data effectively.
		3.2	Conduct thorough data preparation and cleaning processes to ensure the quality, accuracy, and reliability of input data for statistical analysis.
		3.3	Perform exploratory data analysis techniques, such as descriptive statistics, data visualization, and correlation analysis, to gain insights into the underlying patterns and relationships within the data.
		3.4	Utilize hypothesis testing techniques to assess the significance of relationships or differences observed in the data and draw valid conclusions.
		3.5	Apply regression analysis techniques, such as linear regression or time series analysis, to model and predict relationships between variables and identify key drivers of business performance.
		3.6	Quantify the financial and operational impact of business problems using data-driven methods.
4.	Design efficient data management systems for secure collection, storage, and access of business and financial information.	4.1	Outline the data requirements of the business, considering factors such as data sources, data types, data volume, and data sensitivity.
		4.2	Design efficient data collection processes, specifying the methods, tools, and technologies required to gather relevant business and financial information accurately and securely.

	4.3 Develop data storage solutions that meet the organization's requirements for scalability, reliability, and security, selecting appropriate storage technologies and architectures (e.g., relational databases, data warehouses, cloud storage).
	4.4 Implement robust data access controls and security measures to safeguard sensitive business and financial information from unauthorized access, ensuring compliance with relevant regulations and standards.
	4.5 Integrate the designed data management systems with existing IT infrastructure and business processes to ensure seamless data flow between different systems and applications.
	4.6 Establish mechanisms for monitoring and maintaining the performance and integrity of the data management systems, conducting regular audits, backups, and updates to mitigate potential risks and vulnerabilities.
5. Generate actionable insights and reports from business and financial data analysis and communicate findings to stakeholders in a clear and concise manner.	5.1 Develop well-structured reports summarizing the findings of data analysis, including visualizations to enhance understanding and interpretation.
	5.2 Tailor make reports to meet the needs and expectations of stakeholders and align content to their interests, preferences, and expertise.
	5.3 Communicate findings and recommendations to stakeholders using language and terminology that is accessible and understandable to diverse audiences.
	5.4 Facilitate engagement and interaction with stakeholders during the communication process, encouraging questions, discussions, and feedback to ensure comprehension and buy-in.

	5.5 Adhere to ethical principles and professional standards in data analysis and reporting, maintaining confidentiality and security of sensitive business and financial information
6. Evaluate business and financial strategies by leveraging data analytics, to ensure alignment with organizational goals and driving continuous improvement.	6.1 Translate organizational goals and objectives into measurable data-driven targets and key performance indicators (KPIs). 6.2 Develop business and financial strategies using data analytics tools and techniques. 6.3 Monitor the performance of implemented strategies using data analytics tools and techniques.
7. Conduct applied research and generate solutions to existing business challenges.	7.1 Critically assess the local, regional and global challenges facing the business industry. 7.2 Apply advanced data collection methods to gather information on key trends and developments in the business industry. 7.3 Analyse quantitative and qualitative data to determine complex and unpredictable challenges within the business industry. 7.4 Generate solutions that promote ethical, innovative and sustainable business practices

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SECTION C	QUALIFICATION STRUCTURE			
COMPONENT	**TITLE**	**Credits Per Relevant NCQF Level**		**Total Credits**
		Level [5]	Level [6]	Level [7]	
FUNDAMENTAL COMPONENT Subjects/ Courses/ Modules/Units	Business communication	10			10
	Principles of marketing	10			10
	Principles of accounting	10			10
	Principles of business management	10			10
	Introduction to data analytics	12			12
	Research methods			12	12
CORE COMPONENT Subjects/Courses/ Modules/Units	Microeconomics			12	12
	Data management and ethics			12	12
	Programming and problem solving			15	15
	Mathematics for data analytics			12	12
	Macroeconomics			12	12
	Human resources management		12		12
	Statistics and probability for data analytics			15	15
	Introduction to database		12		12

management systems				
Digital marketing		12		12
Econometrics			12	12
Corporate Finance		12		12
Financial markets and institutions		12		12
Data mining			12	12
Data visualization			12	12
Time series analysis and forecasting			12	12
Portfolio and investment management		12		12
Advanced corporate finance			12	12
Financial analytics			12	12
Business analytics			12	12
Multinational Finance			12	12
Production and operations management			12	12
Industrial attachment			60	60
Derivatives			12	12
Enterprise risk management			12	12
Dissertation			20	20

		Credits Per Relevant NCQF Level			Total Credits
	Strategic management			12	12
	Project management			12	12
STRANDS/ SPECIALIZATION	Subjects/ Courses/ Modules/Units	Level [5]	Level [6]	Level [7]	
1.					
2.					
Electives	Transport and supply chain analytics			15	15
	Marketing analytics			15	15
	Manufacturing Analytics			15	15
	Human Resources Management Analytics			15	`15

SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL	
TOTAL CREDITS PER NCQF LEVEL	
NCQF Level	**Credit Value**
5	52
6	72
7	356
TOTAL CREDITS	**480**

Rules of Combination:

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

The credit distribution is made up of 64 credits from the fundamental component, 386 credits from the core component and the remaining 30 credits from elective component, where candidates choose 2 modules.

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ASSESSMENT ARRANGEMENTS

All assessments which are leading to the award of the qualification should be based on learning outcomes and associated assessment criteria. The Assessors and Moderators should:

- Be registered and accredited as Assessors and Moderators by the Botswana Qualifications Authority or its equivalent.

- Be experts in educational management or any leadership qualifications at level10 in the sub-field of the qualifications area.

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

There will be provision for internal and external moderation, conducted by Moderators registered with Botswana Qualifications Authority (BQA).

RECOGNITION OF PRIOR LEARNING

Recognition of Prior Learning (RPL) 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

Horizontal articulation

- Bachelor of Science in Data Science

- Bachelor of Science in Artificial Intelligence
- Bachelor of Science in Quantitative Finance

Vertical articulation

- Bachelor of Commerce in Business and Finance Analytics (Honours)
- Bachelor of Science in Business Analytics and Finance (Honours)
- Postgraduate Diploma in Finance and Business Analytics
- Postgraduate Diploma in Business Analytics
- Master of Science in Data Analytics
- Master of Science in Data Science
- Master of Science in Finance
- Master of Science in Quantitative Finance
- Master of Science in Business Management

Employment opportunities

- Data Analyst
- Quantitative Analyst
- Risk Analyst
- Business Analyst
- Product Analyst
- Financial Analyst
- Research Analyst
- Data Management Officer

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 Commerce in Business and Financial Analytics, candidates should have passed all course work assignments and the final examination and obtained a minimum of 480 credits. A certificate will be issued to learners who are awarded the qualification.

SUMMARY OF REGIONAL AND INTERNATIONAL COMPARABILITY

This qualification is comparable with the following qualifications:

- Bachelor Commerce with Specialization in Business and Financial Analytics - University of the Free State, South Africa
- Bachelor of Commerce (Management Sciences) in Business Analytics - University of Stellenbosch, South Africa
- Bachelor of Arts in Financial Analytics - Western Colorado University, United States of America

The benchmarking exercise revealed that the proposed (Bachelor of Commerce in Business and Finance Analytics) compares favourably against other regional and international qualifications benchmarked with. The titles vary to denote the qualification streams, which are Business Analytics, Financial Analytics and a combination of Business and Financial Analytics. The title of the proposed qualification closely compares with the qualification offered by University of the Free State, since they both offer a double major in Business and Financial Analytics. On the other hand, the University of Stellenbosch offers a major in Business Analytics and Western Colorado University offers a major in Financial Analytics. The proposed qualification and the qualifications offered by University of the Free State and University of Stellenbosch share a similar designator which is a Bachelor of Commerce as opposed to the qualification offered by Western Colorado University which is a Bachelor of Arts. Although there are slight differences in titles and designators, the qualifications have a common goal in terms of capacitating learners with the requisite knowledge and skills to gain insights from data analysis that inform decision-making and to analyse and manage business functions and processes. Similarly, all the qualifications are bachelor's degree pitched at level 7 following the qualification frameworks adopted by each country (NCQF and NQF).

There are also visible similarities in terms of the domains in the proposed qualification and the ones benchmarked with. These include Business Analytics, Microeconomics, Macroeconomics, Statistics, Derivatives. The proposed qualification, and the qualifications for University of Stellenbosch's and Western Colorado University have a provision for research projects to enable their learners to address real life problems with their projects unlike the qualification for University of Free State which does not have a research project. The assessment strategies for all the qualifications include both formative and summative to assess the achievement of the stated learning outcomes. The rule for award of qualification in all the qualifications is for learners to complete all compulsory modules and attain the minimum required credits.

There are noticeable differences in terms of credits and duration because of differences in frameworks adopted by each country. The proposed qualification caries 480 credits whereas the

qualification for University of the Free State carries 408, University of Stellenbosch's qualification 374 and Western Colorado University's qualification 120 credits. In terms of years, the proposed qualification and Western Colorado University's qualifications run for 4 years whereas the qualifications for University of the Free State and University of Stellenbosch run for 3 years.

In terms of articulation, all the qualifications have similar routes for educational progression and employment pathways. The common education progression pathway for all the qualifications together with the proposed is a Master of Science in Data Analytics. The qualifications have similar employment pathways and the ones that cut across in all qualifications are Data Analyst and Financial Analyst.

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

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CODE (ID)			
REGISTRATION STATUS	BQA DECISION NO.	REGISTRATION START DATE	REGISTRATION END DATE
LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT	