

BQA NCQF QUALIFICATION TEMPLATE

SECTION A:												QUALIFICATION DETAILS					
QUALIFICATION DEVELOPER (S)				Botswana University of Agriculture and Natural Resources													
TITLE		Master of Science in Agricultural and Applied Economics								NCQF LEVEL		9					
STRANDS (where applicable)		N/A															
FIELD		Agriculture and Nature Conservation								CREDIT VALUE		240					
SUB FIELD		Agricultural and Applied Economics															
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:

This qualification, Master of Science in Agricultural and Applied Economics, which targets practising agricultural and applied economists is unique for there is no similar qualification registered on the NCQF. The job market in Botswana needs highly trained local professionals to address the challenges posed by changes in global and local economies, technology, and marketing. One of the obstacles preventing the implementation of agricultural policies and development projects is the lack of qualified personnel in specialized disciplines, according to reports from the Human Resource Development Council (HRDC, 2023). The economy needs professionals with skills that range from analysing the implications of changes in trade, climate and general macroeconomic environment to studying the performance of local agricultural markets, services and inputs.

Professionals are also required to determine the economic as well as technical feasibility of new products and processes. This can be achieved through exposing students to current issues in agricultural and applied economics and equipping professionals with knowledge and skills essential for transforming the agro-food sectors and rural economies of the region in an environmentally sustainable fashion. The Master of Science in Agricultural and Applied Economics is therefore relevant to the development of the agricultural sector in line with Botswana's national Vision 2036. The vision requires the development of critical skills to spur development. Botswana's national Vision 2036 envisages an economy that is 'efficient, vibrant and knowledge-based, with access to a skilled and internationally competitive workforce, leading-edge technology and infrastructure' (Republic of Botswana, 2016). A Master of Science in Agricultural and Applied Economics qualification will help in the attainment of this vision.

The 2024 national budget speech highlighted that to lower unemployment, and productivity and skills mismatch, the education sector must create the necessary skills for the economy. This is in line with the Vision 2036 and various government policies. The budget speech for 2024 also recognized the need to address the imbalance between the amount of human capital that is available and the demands of the economy as a whole and employers. The economy must push toward digitalization and enhance labour force skills to meet the growth requirements. The proposed qualification is meant to address some of the skills mismatch in the economy and help in enhancing agricultural productivity. Considering the observation by the government, there is need to tailor make qualifications that will address the skills shortages. The proposed qualification will impart knowledge on contemporary issues in agriculture and technology during the changing times. The qualification is therefore necessary as it addresses the key economic development goals and is in line with the government policies and vision. The qualification will also complement the current skills set in the agricultural field.

PURPOSE: (itemise exit level outcomes)

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

1. Analyse and address the impacts of global and local economic, environmental, and technological changes on agriculture, thereby supporting evidence-based policy formulation.
2. Assess the feasibility of innovative products, processes, and policies, fostering sustainable transformation of the agribusiness and rural sectors.
3. Improve the performance of local agricultural markets, inputs, and services, aligning with national development goals and regional sustainability priorities.
4. Promote the development of specialized techniques and critical skills in contemporary agricultural and economic issues, enabling graduates to bridge skills gaps, support technological advancement.

MINIMUM ENTRY REQUIREMENTS (including access and inclusion)

Minimum Entry Requirements

The minimum admission requirement is a Bachelor's Degree (NCQF level 7) in the same or a cognate field of study.

Candidates who do not satisfy the minimum academic qualifications outlined above will be eligible for evaluation through a Recognition of Prior Learning (RPL) process, which will be conducted in accordance with the National RPL Policy. Additionally, there will be an option for Credit Accumulation Transfer (CAT) for learners transferring from another recognized institution, following the guidelines set forth in the National Policy on CAT

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SECTION B		QUALIFICATION SPECIFICATION	
GRADUATE PROFILE (LEARNING OUTCOMES)		ASSESSMENT CRITERIA	
<p>1. Analyse and interpret the implications of global and local economic, environmental, and technological changes on agricultural policies, markets, and rural development</p>	<p>1.1 Evaluate the effects of global and local economic, environmental, and technological developments on agricultural policies and market dynamics.</p>		

<p>strategies to inform evidence-based decision-making.</p>	<p>1.2 Analyse data and case studies to identify the implications of these changes for rural development strategies and policy formulation.</p> <p>1.3 Apply evidence-based approaches to develop informed recommendations that address challenges and opportunities arising from evolving economic, environmental, and technological contexts.</p>
<p>2. Evaluate the specialised technical and economic feasibility of innovative products, processes, and policies within the agricultural sector, supporting sustainable development and sector transformation.</p>	<p>2.1 Assess the technical viability of innovative products, processes, and policies to determine their practicality and effectiveness within the agricultural sector.</p> <p>2.2 Examine the economic implications of proposed innovations, including cost-benefit and impact assessments, to support sustainable development.</p> <p>2.3 Formulate informed recommendations on the implementation of new products, processes, and policies that promote sector transformation and sustainability.</p>
<p>3. Apply contemporary theories and practical skills in agricultural and applied economics to address real-world challenges, enhance productivity, and support policy formulation aligned with national development goals.</p>	<p>3.1 Demonstrate the application of current theories and practical skills to analyse and develop solutions for real-world agricultural challenges.</p> <p>3.2 Utilize applied economic tools and methodologies to identify opportunities for improving productivity within the agricultural sector.</p> <p>3.3 Collaborate with stakeholders to develop policy recommendations that align with national development objectives and sustainable growth goals.</p>

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<p>4. Demonstrate high level of critical thinking, research, and problem-solving skills through project work and policy analysis, contributing to the advancement of environmentally sustainable and regionally relevant agricultural practices.</p>	<p>4.1 Analyse complex agricultural problems and design innovative, evidence-based solutions through research and project work.</p> <p>4.2 Evaluate policy options and assess their environmental and regional relevance to promote sustainable agricultural practices.</p> <p>4.3 Synthesize research findings and articulate well-founded recommendations that support environmentally sustainable development aligned with regional priorities.</p>
<p>5. Effectively oversee entrepreneurial ventures or organizational operations to achieve long-term sustainability, financial stability, and profitability, while fostering innovative practices and strategic growth to ensure continued success.</p>	<p>5.1 Plan and manage business activities or organizational functions to ensure long-term sustainability and financial stability.</p> <p>5.2 Implement innovative strategies and practices that foster growth, efficiency, and adaptability in business or organizational operations.</p> <p>5.3 Monitor and evaluate performance metrics to sustain profitability, identify areas for improvement, and support continued success and resilience.</p>

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SECTION C	QUALIFICATION STRUCTURE				
COMPONENT	TITLE	Credits Per Relevant NCQF Level			Total Credits
		Level []	Level []	Level [9]	
FUNDAMENTAL COMPONENT Subjects/ Courses/ Modules/Units					

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CORE COMPONENT	Economic Theory			24	24
Subjects /Courses/ Modules/Units	Quantitative Techniques			24	24
	Production and Market Analysis			24	24
	Environmental and Resource Management			24	24
	Policy analysis			24	24
	Research			120	120
STRANDS/ SPECIALIZATION		Credits Per Relevant NCQF Level			Total Credits
		Level []	Level []	Level [9]	
1.					

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2.					
Electives (Choose 3)					

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SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL

TOTAL CREDITS PER NCQF LEVEL

NCQF Level	Credit Value
9	240
TOTAL CREDITS	240

Rules of Combination:

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

This qualification has 240 credits and requires 2 years (full-time) or 3 years (parttime) to complete.
The credit distribution is as follows:

Level	Credit Value			
	Fundamental	Core	Elective	Total
9	–	240	–	240
Total	–	240	–	240

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ASSESSMENT ARRANGEMENTS

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

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 shall be provision for both internal and external moderation in accordance with institutional policies aligned with national policies. Moderation will be carried out by experts who are registered and accredited as moderators by a recognised Authority.

RECOGNITION OF PRIOR LEARNING

Recognition of Prior Learning (RPL) and Credit Accumulation and Transfer (CAT) will be applicable and considered for award of this qualification. Assessment for RPL shall be done as per the Educational Training Provider (ETP) policy in line with the national policy on RPL

CREDIT ACCUMULATION AND TRANSFER

Credit Accumulation and Transfer (CAT) will be applicable and considered for award of this qualification. Assessment for CAT shall be done as per the ETP policy in line with the national policy on CAT.

PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

Learning Pathways

Horizontal Articulation:

Graduates may progress horizontally, pursuing a different master's level qualification related to some of the specialist courses in this qualification on several qualifications but not limited to:

- Master's Degree in Economics
- Master's Degree in Finance

- Master's Degree in Agribusiness

Vertical Articulation

Student's graduating with this degree can easily articulate into the following:

- Doctor of Philosophy in Agricultural Economics
- Doctor of Philosophy in Economics
- Doctor of Philosophy in Agriculture and Finance
- Doctor of Philosophy in Econometrics

Employment Progression Pathways

- Consultant in Agricultural and Applied Economics
- Academia as lecturer or researcher
- Policy Analyst in government or private sector
- Policy Advisor to government, research institutes or other policy-oriented bodies
- Professional Farm Manager
- Production Management Supervisor

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 Master of Science in Agricultural and Applied Economics, candidates should have obtained a minimum of 240 credits.

A certificate will be issued to learners who are awarded the qualification.

SUMMARY OF REGIONAL AND INTERNATIONAL COMPARABILITY

The proposed MSc in Agricultural and Applied Economics was benchmarked against the following qualifications, offered by various institutions regionally and internationally:

Master of Science in Agricultural Economics - University of Pretoria (UP), South Africa

While both the developed qualification and the **Master of Science in Agricultural Economics** University of Pretoria are on agriculture, there are key differences: This qualification is a 2-3 year, 240-credit with specific exit outcomes, course modules, clear assessment strategies, well-defined qualification rules, and outlined employment pathways, while UP's MSc in Economics (with an agricultural specialization) has a 2-year duration but lacks explicit detail on credit value, exit outcomes, and specific career paths, despite similar domain modules and assessment weightings.

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In essence, the developed qualification provides a more explicitly defined framework for students seeking careers in agricultural and applied economics

Master of Science in Agricultural Economics and Management - University of Stellenbosch, South Africa

The developed qualification and the MSc Agric in Agricultural Economics and Management at the University of Stellenbosch, both institutions offer master's-level degrees but differ in specific features: This qualification outlines clear exit outcomes focusing on developing analytical skills and sustainable transformation, and detailed modules such as Economics of Climate Change, assessing this area. By contrast, the University of Stellenbosch lacks details on exit outcomes and mentions advanced research for its graduates with a broader array of modules such as analysis of food and fibre value chains and applies general criteria for assessment. Education and employment pathway are more explicit with the developed qualification while the University of Stellenbosch has much broader pathways

Master of Science in Agricultural Economics - University of Reading, United Kingdom

This qualification has a duration of 2-3 years and 240 credits, explicitly aims to train professionals to address economic and technological challenges in agriculture, focusing on policy formulation with modules such as Climate Change Economics, while University of Reading's MSc Agriculture Economics, a 1–2 year program with 180 credits, focuses more on understanding economic forces and conducting independent research; the developed qualification assesses through weighted exams and continuous assessment, contrasting with Reading's coursework and examinations. Finally, BUAN's program leads to specific career paths like consultancy and policy advising, while Reading's offers broader options in industry, government, or further study.

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

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LAST DATE FOR ENROLMENT		LAST DATE FOR ACHIEVEMENT	

