

BQA NCQF QUALIFICATION TEMPLATE

SECTION A: QUALIFICATION DETAILS													
QUALIFICATION DEVELOPER (S)			University of Botswana										
TITLE		Master of Nursing Science in Intensive Care Nursing							NCQF LEVEL		9		
STRANDS (where applicable)		1. N/A											
FIELD		Health and Social Services		SUB-FIELD		Health Sciences		CREDIT VALUE		271			
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 World Health Organization Global Strategic Directions for Strengthening Nursing and Midwifery (2021) indicates that the global nursing workforce of 27.9 million represents a needs-based shortage of 5.9 million nurses. This shortage is overwhelmingly (89%) in low and lower-middle income countries (WHO,2021). Nurses are therefore needed to match or surpass health system demand. Nurses who possess requisite knowledge, competencies and attitudes are needed to meet national health priorities. Furthermore, the strategy has set goals focusing on ensuring an educated, competent and motivated nursing and midwifery workforce (WHO,2021). Botswana, an upper-middle income country faces similar challenges. Botswana's healthcare system is facing a critical shortage of specialist nurses, particularly in Intensive Care Nursing (HRDC, 2023/2024). Despite the growing number of health facilities offering Intensive Care services, only eight nurse specialists are currently registered with the Nursing and Midwifery Council of Botswana (NMCB). The Ministry of Health (MOH) is aware of these challenges and is committed to													

strengthening the human resource needed to improve performance and motivation as part of the National Development Plan 11 (2017-2023). Therefore, advanced educational preparation in intensive care nursing is crucial in building the capacity of healthcare professionals.

The global disease burden and complexity of care continue to increase, the demand for nurses with specialized skills in intensive care has never been more urgent. The COVID-19 pandemic highlighted the vulnerability of healthcare systems worldwide, particularly with a high number of patients requiring ICU services. According to WHO (2021) lesson learned from Covid-19 is that most people with Covid 19 developed mild to moderate (40%) diseases, with 15% developing severe diseases that required oxygenation. Many of these resulted in severe complication such as acute respiratory distress syndrome, septic shock, thromboembolism or multiple organ failure and hence required admission in the intensive care unit. As a result, in Botswana, nurses without ICU training were deployed to ICUs, including the Sir Ketumile Masire Teaching Hospital (SKMTH), which was specifically assigned for COVID-19 patients. The rise in non-communicable diseases (SDG 3.4) and road traffic injuries (SDG 3.6) further underscores the need for intensive care specialists, as these conditions can often escalate and necessitate the expertise of highly trained nurses to care for patients with life-threatening diseases or injuries (WHO, 2018).

The current shortage of intensive care specialists in Botswana is exacerbated by lack of institutions in the country that offer postgraduate courses in intensive care nursing. This situation has led the government and private institutions to recruit nurses with these specialties from other regions and countries to meet the demand. Nurses in Botswana are compelled to seek training regionally and internationally and this is expensive and unsustainable. In 2022, the need for advanced practice nurses training in critical nursing areas such ICN was reflected in the DTEF 2022/2023 training plan. There is a need for a long-term capacity building qualification in Intensive care nursing. This curriculum is designed to prepare intensive care nurses with advanced knowledge and skills that will enable them to collaborate effectively with other healthcare professionals and deliver intensive care to critically ill patients and their families.

PURPOSE: (itemise exit level outcomes)

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

- Manage patients with complex and life-threatening conditions by applying advanced clinical reasoning, evidence-based interventions, and rapid decision-making in intensive care unit settings.
- Coordinate interprofessional critical care teams by facilitating communication, delegating roles, and implementing quality improvement initiatives to enhance patient safety and care outcomes in the intensive care settings.
- Conduct advanced research by utilising appropriate research methodologies, analysing critical care data, and integrating evidence into practice to improve patient outcomes and critical care protocols.

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- Integrate legal, ethical, and professional standards by making accountable decisions, advocating for critically ill patients, and ensuring compliance with regulatory and ethical frameworks within high-risk critical care environments.
- Utilise advanced critical care technologies and data systems to optimise patient management and support clinical decision-making in intensive care settings.
- Implement and evaluate specialised critical care interventions to stabilise patients and prevent complications in critically ill populations

MINIMUM ENTRY REQUIREMENTS (including access and inclusion)

The minimum entry requirements for the Master of Nursing Science in Intensive Care Nursing qualifications are:

- NCQF Level 7 in a Bachelor of Nursing Science degree, or equivalent
- Entry through Recognition of Prior Learning (RPL) and Credit Accumulation and Transfer (CAT) is accessible to all candidates through institutional policies in line with the national RPL and CAT policies.

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SECTION B

QUALIFICATION SPECIFICATION

GRADUATE PROFILE (LEARNING OUTCOMES)

ASSESSMENT CRITERIA

1. Demonstrate advanced knowledge and understanding of clinical judgment and decision-making through the integration of pathophysiology and evidence-based guidelines in the assessment, diagnosis, planning, and holistic management of critically ill patients in intensive care settings	1.1 Analyses and integrates relevant psychosocial, cultural, and clinical theories to interpret complex patient problems in intensive care settings 1.2 Synthesizes scientific evidence from nursing, bio-psychosocial sciences, genetics, quality improvement, and organizational sciences to inform advanced critical care practice 1.3 Demonstrate comprehensive understanding and critical application of interdisciplinary sciences to support safe and effective ICU interventions 1.4 Evaluate statistical and epidemiological principles to analyse patient outcomes and
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	generate evidence-based recommendations for improving ICU practice. 1.5 Design and implements culturally sensitive, evidence-informed interventions that address complex and multidimensional health needs of individuals, families, and communities in critical care 1.6 Create and innovates advanced intensive care nursing strategies to enhance service delivery and patient outcomes in dynamic ICU environments. 1.7 Demonstrate leadership by applying and evaluating advanced communication, counselling, advocacy, and interpersonal skills to establish and sustain therapeutic relationships in critical care contexts 1.8 Apply, monitor, and evaluate evidence-based Infection Prevention and Control (IPC) strategies to optimize patient safety and reduce infection rates in ICU settings. 1.9 Lead interprofessional teams to design, implement, and evaluate IPC standards and transmission-based precautions based on current research and best practice guidelines
2. Demonstrate advanced knowledge and understanding of professional, ethical, and legal principles in critical care nursing practice	2.1 Integrate lifelong learning and professional development activities to enhance advanced clinical skills and decision-making in critical care nursing practice. 2.2 Analyse international and national legislative and regulatory frameworks to ensure compliance and promote safe and effective care delivery in intensive care settings 2.3 Evaluate ethical and legal principles to guide complex clinical decision-making in intensive care nursing practice

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3. Conduct and lead specialized research and quality improvement initiatives to generate, translate, and apply evidence for improving patient outcomes and critical care nursing practice	3.1 Analyse and synthesize relevant literature, evidence, and public policies to identify gaps and inform best practices in intensive care nursing. 3.2 Designs, conducts, and disseminates rigorous research addressing complex clinical problems, and applies evidence-based findings to enhance quality in intensive care practice 3.3 Evaluate existing nursing practices to identify, justify, and establish evidence-based best practices that promote quality of care in critical care settings. 3.4 Evaluate nursing interventions to ensure the delivery of safe, effective, and evidence-informed patient care in intensive care environments. 3.5 Designs, implements, and evaluates quality improvement initiatives to enhance patient safety and care outcomes in intensive care nursing 3.6 Leads interdisciplinary research initiatives aimed at improving health outcomes for diverse populations in critical care settings. 3.7 Advocate for the ethical conduct of research by applying advanced ethical principles, regulatory standards, and governance frameworks.
4. Apply advanced critical thinking and clinical decision-making skills to address the client's problems, concerns or needs using available data in critical care nursing practice	4.1 Analyse, interpret, and integrate diagnostic and laboratory data to inform accurate clinical judgments and decision-making in critically ill patients. 4.2 Evaluate, plan, and implement therapeutic interventions with consideration of adverse

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	drug reactions, polypharmacy, and patient-specific risk factors across the lifespan. 4.3 Synthesizes clinical data and applies advanced clinical reasoning to design, deliver, and manage comprehensive care for individuals, families, and communities requiring intensive care services. 4.4 Lead interprofessional collaborative decision-making processes to optimize patient outcomes and improve quality of care in critical care settings.
5. Demonstrate self-directedness, autonomy and accountability in the management of patients requiring intensive care.	5.1 Analyse legal and professional frameworks to independently deliver safe, ethical, and patient-centered care for critically ill patients, families, and communities in intensive care settings. 5.2 Design and implements evidence-based standards, clinical protocols, guidelines, quality assurance tools, and performance measures to enhance intensive care nursing practice. 5.3 Synthesizes advanced management and leadership principles to plan, coordinate, and evaluate projects that improve patient outcomes and quality of care in intensive care settings across the lifespan. 5.4 Create and evaluate innovative and entrepreneurial strategies to enhance the efficiency, quality, and sustainability of intensive care nursing services. 5.5 Leads strategic professional networks and interdisciplinary partnerships to optimize collaboration, resource utilization, and patient outcomes in intensive care practice

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6. Utilize and integrate advanced healthcare technologies and information systems to enhance clinical decision-making, patient safety, and quality of care in intensive care nursing practice

6.1 Analyse, apply, and integrate non-invasive and invasive technologies to assess, monitor, and maintain physiological stability in critically ill patients within intensive care settings

6.2 Utilize advanced health information systems in intensive care nursing education, clinical practice, leadership, and research to enhance decision-making and quality of care.

6.3 Evaluates healthcare outcomes using advanced data management technologies to inform evidence-based improvements and optimize patient outcomes in intensive care settings

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SECTION C	QUALIFICATION STRUCTURE				
COMPONENT	TITLE	Credits Per Relevant NCQF Level			Total Credits
		Level [7]	Level [8]	Level {9}	Level []
FUNDAMENTAL COMPONENT <i>Subjects/ Courses/ Modules/Units</i>	Theoretical Foundations of Nursing		12		12
	Research Methods in Nursing		12		12
	Medical Statistics Advanced Pathophysiology		12		12
	Medical Statistics			15	15
	Pharmaceutical Interventions for Advanced Practice Nurses			12	12
CORE COMPONENT <i>Subjects'/Courses/ Modules/Units</i>	Foundations of Intensive Care Nursing			12	12
	Foundations of Intensive care Nursing- Clinical Practice			16	16

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	Intensive Care for Advanced Practice Nurses I			12	12
	Intensive Care for Advanced Practice Nurses – Clinical Practice I			16	16
	Intensive Care for Advanced Practice Nurses II			12	12
	Intensive Care for Advanced Practice Nurses – Clinical Practice II			16	16
	Dissertation			80	80
	Internship in Intensive Care Nursing			32	32
	Health Policy and Health Service Management			12	12
STRANDS/ SPECIALIZATION	Subjects/ Courses/ Modules/Units	Credits Per Relevant NCQF Level			Total Credits
		Level [9]	Level []	Level []	
N/A					
N.A					
Electives/optional	There are no electives and options				
SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL					
TOTAL CREDITS PER NCQF LEVEL					
NCQF Level		Credit Value			

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Level 8	36
Level 9	235
TOTAL CREDITS	271

Rules of Combination:

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

Fundamental courses: 63 credits

Core courses: 208 credits

Total credits: 271

- All fundamental and core courses must be achieved for the qualification to be awarded
- There are no elective modules within this qualification

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ASSESSMENT ARRANGEMENTS

All assessments will be done for theory and practice using formative and summative assessments.

- **Formative assessment:** weighing of 60
- **Summative assessment:** weighing of 40

Assessment will be carried out by assessors who have been registered and accredited by the BQA or other relevant bodies.

Assessment will also be conducted by those who hold qualifications at a higher level and in a related field

MODERATION ARRANGEMENTS

Internal and external moderation

- There shall be both internal and external moderation in accordance with institutional policies aligned with national policies.
- Moderators shall be carried out by assessors who have been registered and accredited by the BQA or other relevant bodies.

RECOGNITION OF PRIOR LEARNING

There is a provision for award of this qualification through RPL in line with institutional and national policies.

CREDIT ACCUMULATION AND TRANSFER

There is a provision for award of this qualification through credit accumulation in line with institutional and national Credit Accumulation Transfer (CAT) policies.

PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

Vertical Progression: Graduates will be eligible to pursue any of the following qualifications:

- Doctor of Nursing Practice (DNP)
- Doctor of Nursing Science

Horizontal Articulation (graduates may consider related qualifications of similar level)

- Master of Nursing Science in Adult-Gerontology Oncology and Palliative Care
- Master of Nursing Science in Adult Health Nursing
- Master of Nursing Science in Community Health Nursing
- Master of Nursing Science in Education

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- Master of Nursing Science in Administration
- Master of Science in Midwifery
- Master of Nursing Science in Psychiatric Mental Health Nursing
- Master of Nursing Science in Family Nurse Practitioner
- Master of Nursing Science in Child and Adolescent Health
- Master of Public Health
- Master of Education in Counselling and Human Services

Possible jobs or employment which the holder of this qualification may take up include the following:

- Advanced practice Intensive care nurses (specialist nurses)
- Nurse instructors/ lecturers
- Nurse scientists
- Consultants

QUALIFICATION AWARD AND CERTIFICATION

The award of Master of Nursing Science in Intensive Care Nursing shall be done after attaining the stipulated minimum credits for the qualification (271 credits) in accordance with the provisions of the institution.

Certification

Candidates meeting the prescribed requirements will be awarded the qualification in accordance with the institution's standards and applicable policies for awarding. The Master of Nursing Science in Intensive Care Nursing will be awarded upon successful completion of the qualification. The graduate will be issued a certificate and an official transcript.

SUMMARY OF REGIONAL AND INTERNATIONAL COMPARABILITY

Title

- The title of the proposed qualification, Master of Nursing Science in Intensive Care Nursing, accurately reflects the discipline area and aligns closely with comparable international qualifications. Similar qualifications are offered at the University of the Witwatersrand (South Africa), titled Master of Science in Nursing in Intensive Care Nursing, and at the University of Adelaide (Australia), titled Master of Nursing Science in Intensive Care Nursing.

NQF Level

- The Master of Nursing Science in Intensive Care Nursing at the University of Botswana is appropriately positioned at NCQF Level 9 and is aligned with comparable qualifications at AQF Level 9 at the University of Adelaide (Australia), NFQ Level 9 at University College Dublin (Ireland), and NQF Level 9 at the University of the Witwatersrand and the University of Cape

Town (South Africa). Therefore, the Master of Nursing Science in Intensive Care Nursing at the University of Botswana is appropriately positioned at NCQF Level 9, demonstrating full alignment with internationally comparable postgraduate qualification.

Credit Value

- The Master of Nursing Science in Intensive Care Nursing qualification comprises 271 credits and is closely aligned with the regional qualification from the University of the Witwatersrand, in South Africa, which comprises 240 credits. Therefore, the Master of Nursing Science in Intensive Care Nursing in the University of Botswana, with its 271 credits, demonstrates a robust and comprehensive curriculum that not only aligns with but exceeds the regional benchmark of comparable qualifications such as the 240-credit at the University of the Witwatersrand

Main Exit Outcome(s)

- The Master of Nursing Science in Intensive Care Nursing qualification emphasizes comprehensive knowledge and its application within multidisciplinary contexts, while fostering critical Master of Nursing Science in Intensive Care Nursing al thinking and evidence-based problem-solving to address complex health challenges. A qualifying learner will demonstrate leadership, effective collaboration and reflective practice, which are like the qualifications assessed. Therefore, the Master of Nursing Science in Intensive Care Nursing qualification at the University of Botswana ensures that graduates attain advanced competencies in clinical expertise, critical thinking, evidence-based problem-solving, leadership, and interdisciplinary collaboration.

Domain's/Modules/Courses/Subjects covered (Fundamental, core & electives)

- The Master of Nursing Science in Intensive Care Nursing qualification includes core fundamental components, with specialised modules in intensive care, and integrates substantial clinical practicum hours to ensure competence in managing high-acuity care settings. This is comparable to the qualifications assessed. The University of Botswana's Intensive Care Nursing curriculum shows strong alignment with benchmarked qualifications at institutions such as the University of Cape Town, University of the Witwatersrand, University of Adelaide, and University College Dublin. Core modules such as Theoretical Foundations of Nursing, Research Methods in Nursing, Advanced Pathophysiology, Pharmaceutical Interventions, and Intensive Care Nursing (theory and clinical practice) are comparable across qualifications, reflecting a shared emphasis on advanced clinical knowledge, research competence, and intensive care practice. The inclusion of a Dissertation and Internship in Intensive Care Nursing further aligns with international standards for research and clinical training. Notable differences include the inclusion of Health Policy and Health Service Management and a stronger integration of theory and clinical modules, as well as enhanced quantitative research preparation through Medical Statistics, which extends beyond some benchmarked qualifications. The proposed qualification includes 996 clinical hours and demonstrates strong alignment with other regional and international qualifications, including 1200 hours at the University of Adelaide, 1000 hours at the University of the Witwatersrand, 800 hours at the University of Cape Town, and 900 hours at Dublin University in Ireland. Therefore, the University of Botswana's qualification is well-aligned with international standards and, in certain areas, more comprehensive due to its integration of policy, structured clinical learning, and strengthened research capacity, thereby adequately preparing graduates for advanced practice, leadership, and further doctoral study in intensive care nursing

Qualification rules and minimum Standards for the award of the qualification

- The Master of Nursing Science in Intensive Care Nursing proposed qualification combines coursework, substantial research (dissertation), and a clinical practicum aligned with intensive care nursing to ensure competency in advanced practice. This integrated structure is like the qualifications that were assessed.

Education Pathways

The Master of Nursing Science in Intensive Care Nursing qualification provides clear pathways for progression to doctoral studies, including a PhD in Nursing, as well as professional doctorates such as the Doctor of Nursing Practice (DNP) or Doctor of Nursing Science. This progression aligns with comparable qualifications that were assessed.

Employment Pathways

Graduates are well-prepared for advanced clinical and leadership roles, including positions as Clinical Nurse Specialists or Advanced Practice Nurses in intensive care units, as well as leadership roles in critical care settings. These employment opportunities are comparable to those of the assessed qualifications.

Conclusion statement

The Master of Nursing Science in Intensive Care Nursing qualification demonstrates strong alignment with comparable international qualifications in terms of its title, NQF level, core outcomes, structure, clinical training, and progression pathways, reflecting consistency in the preparation of advanced intensive care nursing professionals. Notable differences are limited to variations in qualification titles across some institutions and differences in credit systems; however, these are largely attributable to differing national frameworks and do not detract from the overall comparability and equivalence of the qualification.

REVIEW PERIOD

This qualification shall be reviewed every five (5) years.

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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/REGULATOR	
		Y	

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