
	BQA NCQF QUALIFICATION TEMPLATE	Document No.	DNCQF.QIDD.GD02
		Issue No.	01
		Effective Date	04/02/2020

SECTION A: QUALIFICATION DETAILS													
QUALIFICATION DEVELOPER (S)		University of Botswana											
TITLE	Master of Medicine in Anatomical Pathology										NCQF LEVEL	9	
FIELD	Health Sciences & Social Services		SUB-FIELD		Anatomical Pathology					CREDIT VALUE	6 0 0		
New Qualification					✓		Review of Existing 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													
<p>RATIONALE:</p> <p>Currently, there is no training programme in the country for Botswana doctors who wish to specialise in Anatomical pathology. The few pathologists practising in the country are all expatriates and render services in only two cities (Gaborone and Francistown). (Botswana Health Professions Council (BHPC) 2012/13 Annual Report, page 22 – 26). They are overworked leading to low quality services of limited value to clinicians. Thus, evidence-based practice is limited. A number of patients get discharged or expire without a definitive diagnosis because of the lack of pathologists. In the two national referral hospitals, the turn-around time for histopathology results to be generated is incredibly long and many requesting clinicians do not get the results in a timely manner affecting clinical care. Capacity enhancement in laboratory service through training of anatomic pathologists is critical to revolutionize the delivery of quality health care services particularly cancer care and improve health outcomes for Botswana and beyond (HRDC Top Occupations in Demand Report 2017, page 6 – 9). The Programme responds to defined social and economic needs in Botswana (and regionally) by addressing Vision 2036 which envisions Botswana as a healthy population who will drive a knowledge-based economy by training diagnosticians (Anatomic pathologists) who support surgeons and clinicians with succinct tissue diagnoses.</p>													

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PURPOSE:

The graduate of the Master of Medicine in Anatomical Pathology will be able to provide high quality anatomical pathology diagnostic services.

The qualification will enable graduates to:


- Apply advanced knowledge of anatomical and molecular pathology in diagnosis.
- Demonstrate high level and mastery of skills in anatomical and molecular pathology.
- Demonstrate competencies in health leadership and research.

ENTRY REQUIREMENTS (including access and inclusion)


Applicants;

- must hold an NCQF Level 8 Bachelor of Medicine and Bachelor of Surgery degrees (MBBS) or equivalent from recognized Universities,
- and must have completed at least two years of clinical practice that must include at least 12 months in a recognized supervised internship programme,
- and must be registered or registrable with the Botswana Health Professions Council (BHPC).


Recognition of prior learning (RPL) and credit accumulation and Transfer (CAT) will be applicable and considered for access to this qualification.

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SECTION B QUALIFICATION SPECIFICATION	
GRADUATE PROFILE (LEARNING OUTCOMES)	ASSESSMENT CRITERIA
1. Exhibit a high level of competency in the interpretation of diagnostic tests results and situate them in the appropriate clinical context.	1.1 Perform diagnostic tests related to Anatomical Pathology competently. 1.2 Interpret diagnostic tests results accurately and correlate them in the appropriate clinical context. 1.3 Describe and explain the anatomical basis and mechanisms of human disease and recommend to clinicians the appropriate test(s) and proper collection of appropriate specimens.
2. Demonstrate efficient and effective communication with all stakeholders for an improved delivery of pathology services.	2.1 Deliver verbal and written/printed test results to clinicians in a timely manner and follow up the patient with critical results. 2.2 Conduct periodic clinical audit and disseminate the information to clinicians and relevant authorities regularly to improve patient care. 2.3 Communicate effectively with other health care workers in verbal and written format. 2.4 Establish continuous verbal and nonverbal interpersonal communication pathways / networks with all members of the healthcare team.
3. Demonstrate advanced managerial, organizational, supervisory and safety skills in the delivery of services at primary and secondary health care laboratories	3.1 Manage the laboratory service effectively. 3.2 Demonstrate safety measures employed in the laboratory. 3.3 Provide documentation on standard operating procedures (SOPs) for all tests and quality control (QC) measures employed for each test. 3.4 Design and optimise processing and reporting systems at primary and secondary healthcare laboratories to allow timeous delivery of test results to clinicians.

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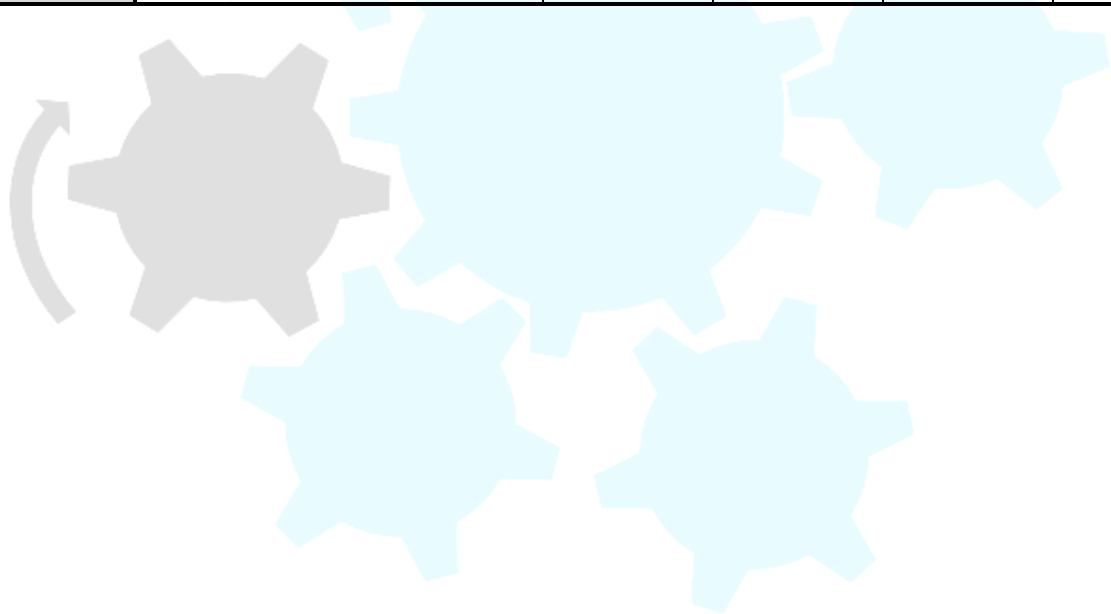
<p>4. Render professional, quality, and ethical service consistent with the obligation of a medical specialist.</p>	<p>4.1 Model compassionate care and professionalism.</p> <p>4.2 Collaborate with other health care workers, and consult them appropriately</p> <p>4.3 Deliver bed-side teaching, lectures, and tutorials to medical students and postgraduate residents, and continuing medical education (CME) sessions to other members of the healthcare team</p> <p>4.4 Provide leadership when called upon to do so.</p> <p>4.5 Demonstrate accountability to the patient, society and the profession.</p>
<p>5. Exhibit advanced research and problem-solving skills in the delivery of health care.</p>	<p>5.1 Demonstrate effective identification of problems and formulation of solutions in the delivery of health care.</p> <p>5.2 Identify a suitable research topic.</p> <p>5.3 Conduct a literature search to establish current knowledge concerning the selected topic.</p> <p>5.4 Design a comprehensive protocol for submission for ethical approval for the research.</p> <p>5.5 Collect the necessary data and materials.</p> <p>5.6 Run required tests, generate and analyse data to arrive at conclusions.</p> <p>5.7 Prepare an original research thesis and/or article for publication in a recognised academic journal.</p>
<p>6. Exhibit advanced Information and Communication Technology (ICT) skills in the delivery of pathology services</p>	<p>6.1 Utilise telemedicine to effectively evaluate, diagnose and treat patients at a distance using telecommunications technology.</p> <p>6.2 Employ digital libraries and e-learning platforms to teach and disseminate the latest medical knowledge and treatment to other members of the healthcare team.</p>


 BOTSWANA Qualifications Authority	BQA NCQF QUALIFICATION TEMPLATE	Document No.	DNCQF.QIDD.GD02
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SECTION C		QUALIFICATION STRUCTURE			
COMPONENT	TITLE	Credits Per Relevant NCQF Level			Total (Per Subject/ Course/module/ Units)
		Level [7]	Level [8]	Level [9]	
FUNDAMENTAL COMPONENT Subjects/ Courses/ Modules/Units	Communication, Ethics and Professionalism			6	6
	Introduction to Clinical Research			5	5
	Introduction to the medical literature			7	7
	Public Health Principles and International Health			8	8
	Principles and techniques of medical education			5	5
CORE COMPONENT Subjects/Courses/ Modules/Units	Master of Medicine Part 1 & 2 Exam preparation (I, II, III & IV)			48	48
	Introduction to Anatomical Pathology (I & II)			108	108
	Dissertation (1, II, III, IV & exam)			62	62
	Intermediate Anatomical Pathology (I, II, III, & IV)			220	220
	Advanced Anatomical Pathology (I & II)			131	131


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ELECTIVE/ OPTIONAL COMPONENT <i>Subjects/Courses/ Modules/Units</i>					



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SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL	
TOTAL CREDITS PER NCQF LEVEL	
NCQF Level	Credit Value
Level 9	600
TOTAL CREDITS	600
Rules of Combination: (Please Indicate combinations for the different constituent components of the qualification)	
<p>Fundamental component contributes 31 credits and Core component contributes 569 credits for a total of 600 credits.</p>	

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ASSESSMENT ARRANGEMENTS

Assessments will comprise.

Formative assessment = 40% (Assessment of competencies, logbook, assignments, lab work, presentations, Research work)

Summative = 60% (Examination, Final dissertation presentation)

MODERATION ARRANGEMENTS

There will be internal and external moderation as a quality assurance measure in line with the ETP policy. Assessors and Moderators must be suitably qualified and registered or accredited in the field of Anatomical Pathology or its different disciplines and subspecialties or a related field.

RECOGNITION OF PRIOR LEARNING

RPL and CAT will be applicable for award of Master of Medicine in Anatomical Pathology qualification on a case-by-case assessment as per the regulation of individual ETP and in alignment with international policies.

CREDIT ACCUMULATION AND TRANSFER

Credit accumulation and transfer will be applicable for award of this qualification on a case-by-case assessment and as per the regulations of individual ETPs and in alignment with international policies.

PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)


Candidates who have completed this qualification will be registrable with the Botswana Health Professions Council or equivalent to practice independently as a specialist Anatomical Pathologist. They can go into further horizontal or vertical pathways.

Horizontal articulation (NCQF Level 9)

- Master of Medicine in Hematopathology (NCQF Level 9)
- Master of Medicine in Forensic Pathology (NCQF Level 9)
- Master of Medicine in Clinical Immunology (NCQF Level 9)
- Master of Medicine in Molecular pathology (NCQF Level 9)
- Master of Medicine in Medical Genetics (NCQF Level 9)

Vertical articulation (NCQF Level 10)

- Doctor of Science in Medicine (NCQF Level 10)

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		Effective Date	04/02/2020

- Doctor of Philosophy (PhD) (NCQF Level 10)

Employment

Surgical Pathologist

Medical Academic

Medical researcher

Lab Managers/Lab administrators

Hospital/ Health system Administrators

Serve in advisory capacities (medical boards, medical insurance, medical device/drug company boards)

QUALIFICATION AWARD AND CERTIFICATION

Qualification and Certification of Master of Medicine in Anatomical Pathology will be awarded along with the transcript to the candidate who achieves 600 credits and satisfies the rules of combination.

REGIONAL AND INTERNATIONAL COMPARABILITY

The qualification compares with the regional and international qualifications in terms of the range of competencies in the learning content offered.

The four-year sequence is consistent with College of Pathology of East Central and Southern Africa (COPECSA), international residency programmes and other international standards for content and duration of training for Master of Medicine in Anatomical Pathology. Objectives, rotation schedule, competencies, and assessment strategies for the Master of Medicine in Anatomical Pathology have also been developed in consultation with College of Medicine of South Africa (CMSA) and College of Pathology of East Central and Southern Africa and international residency programmes.

(Further details given in the attached Qualification comparability matrix)

REVIEW PERIOD

The qualification will be reviewed every five years in line with the requirements of NCQF policy.