


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

SECTION A: QUALIFICATION DETAILS													
<b>QUALIFICATION DEVELOPER (S)</b>				University of Botswana									
<b>TITLE</b>				Master of Medicine in General Surgery						<b>NCQF LEVEL</b>		9	
<b>FIELD</b>		Health Sciences and Social services				<b>SUB-FIELD</b>		General Surgery		<b>CREDIT VALUE</b>		800	
New Qualification						<input checked="" type="checkbox"/>		Review of Existing Qualification					
<b>SUB-FRAMEWORK</b>				General Education				TVET		Higher Education		<input checked="" type="checkbox"/>	
<b>QUALIFICATION TYPE</b>		Certificate		I	II	III	IV	V	Diploma		Bachelor		
		Bachelor Honours		Post Graduate Certificate				Post Graduate Diploma					
		Masters						<input checked="" type="checkbox"/>		Doctorate/ PhD			
RATIONALE AND PURPOSE OF THE QUALIFICATION													
<p><b>RATIONALE:</b></p> <p>The absence of sufficient numbers of specialist general surgeons, who can handle a variety of other surgical specialty and super-specialty lifesaving emergency surgical conditions, has led to unnecessary and delayed referral to specialist centres which have got a great impact on patient's outcome. One of the main reasons for this is the absence of training programmes for specialist general surgeons in Botswana.</p> <p>Currently the country is spending millions of Pula for surgical patients care in other countries including republic of South Africa and India, which can be used to further develop the health care system in the country. The health services rendered by the surgical registrars during their training will remain in Botswana.</p> <p>The offering of this qualification locally will significantly reduce the cost of general surgeons training outside Botswana. It will benefit other Master of Medicine programme residents from quality relevant surgical rotations, and it enhances the experience of MBBS programme trainees. It will strengthen the quality of surgical health care in the country and the region.</p> <p>The Human Resource Development Council of Botswana 2019 report listed surgeons, specialist medical practitioners with specialized technical skills in general surgery being one, are top occupations in demand in</p>													

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## **PURPOSE:**

The purpose of this qualification is to produce a general surgeon who is able to:


- apply advanced scientific knowledge and clinical expertise for the prevention, diagnosis, treatment, and compassionate care of patients as an individual and in multi-disciplinary team.
- register to practice as a specialist general surgeon with the Botswana Health Professions Council or equivalent regulatory professional bodies internationally.

The qualification will further address the severe shortage of specialist general surgeons in Botswana and a large deficit in the numbers of operations performed compared to the need.


## **ENTRY REQUIREMENTS (including access and inclusion)**

- The applicant must hold an NCQF level 8 qualifications, i.e., Bachelor of Medicine, Bachelor of Surgery (MBBS) or medical doctor degree (MD).
- The applicant must complete at least two years of clinical practice which at least 12 months in a recognized internship program and another 12 months in a surgical speciality as a medical officer.
- The applicant must be registered or registrable with the Botswana Health Professional Council (BHPC).
- Previous learning and credit accumulation and transfer are applicable as per qualification developer/provider policy on RPL and CAT in accordance with NCQF policy.


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<b>SECTION B</b>		<b>QUALIFICATION SPECIFICATION</b>	
<b>GRADUATE PROFILE (LEARNING OUTCOMES)</b>		<b>ASSESSMENT CRITERIA</b>	
1. Assess surgical patients at a specialist general surgeon level in accordance with international guidelines		1.1 Perform a clinical interview and physical examination relating to complex surgical problems competently. 1.2 Identify and interpret relevant and various advanced clinical findings accurately to determine the diagnosis and decide on the mode of management. 1.3 Perform, order, and interpret an appropriate advanced investigations and procedures when indicated. 1.4 Teach and supervise junior staffs effectively regarding the evaluation and management of general surgical patients.	
2. Apply advanced knowledge and skills in the management of general surgical patients in accordance with current best practice		2.1 Practice advanced knowledge of physiology, pharmacology, and pathology in the practice of general surgery for the best outcome of their patients. 2.2 Select and perform or order appropriate investigations when indicated with accountability for resources. 2.3 Carryout appropriate treatment based on up-to-date and best available evidence for the best outcome. 2.4 Perform varieties of general surgical procedures and refer patients for further specialized care, when appropriate. 2.5 Co-manage patients with other specialists to address complex general surgical problems efficiently. 2.6 Educate and counsel patients regarding their clinical problems, options of managements and outcomes competently and with high professional integrity. 2.7 Plan and provide appropriate follow up based on the course of the disease and available resources. 2.8 Effectively and professionally communicate with health care workers in verbal and written format. 2.9 Maintain a standard clinical records and confidential documentations of all practice activities all the times which are accessible only by authorized people.	


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	2.10 Teach and supervise junior residents and staff members in the management of common general surgical diseases independently.
3. Demonstrate acquisition of advanced information and critically evaluate its quality and utility in their general surgical practice	<p>3.1 Access current practice information using electronic and traditional methods in demonstrating self-directed learning and to make informed decision with considerable authority.</p> <p>3.2 Engage in continuing professional development activities as a life-long learner to demonstrate acquisition of knowledge and skills necessary to make critical decisions and accomplish the best outcome in his/her practice.</p> <p>3.3 Appraise critically the quality, relevance and utility of new information that include evidence-based practice in general surgical practice and effectively inform his/her colleagues to apply in their clinical practice.</p>
4. Establish a high standard professional team approach with all the relevant stakeholders.	<p>4.1 Demonstrate professional ethics to all stakeholders for the best outcome of their clinical practice.</p> <p>4.2 Accredited the roles other health care workers play; encourage and mentor them appropriately.</p> <p>4.3 Provide effective leadership in the general surgical team academic and clinical service when called upon to do so.</p> <p>4.4 Facilitate effective conflict prevention and resolution in their professional practice.</p> <p>4.5 Practise comprehensive and standard operating theatre management for effective and smooth delivery of operation services.</p>
5. Facilitate and promote knowledge on advanced general surgical matters to patients and the broader community	<p>5.1 Consult patients on their diseases, options of treatment and possible outcome and associated shortcomings of specific surgical procedure clearly.</p> <p>5.2 Educate patients, their family and close relatives/friends regarding health promotion and disease prevention to help the patient and protect others efficiently.</p> <p>5.3 Demonstrate an awareness of health promotion and general surgical disease prevention priorities and strategies using different platforms: radios, televisions, etc.</p>
6. Demonstrate	6.1 Teach residents, medical officers and nurse staffs in the surgical team for up-to-


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advanced knowledge in general surgical practice by sharing experiences with other health care professionals	<p>date and effective delivery of surgical services.</p> <p>6.2 Participate actively in interdepartmental teaching programme to enhance his/her experience and others experience.</p> <p>6.3 Present research works in national, regional and international conferences to contribute the new knowledge or evidence identified to the scientific world.</p>
7. Identify pertinent surgical health problems and provide an advanced level solution through research	<p>7.1 Produce original research project to alleviate the burden of common surgical diseases.</p> <p>7.2 Coach junior staffs in research works to help them identify common surgical diseases, feasibility of the study and the possible impact of their research to the patients and to the community at large.</p> <p>7.3 Participate in national, regional and international multi-centric research works to share experiences.</p>

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SECTION C	QUALIFICATION STRUCTURE				
COMPONENT	TITLE	Credits Per Relevant NCQF Level			Total (Per Subject/ Course/ Module/ Units)
		Level [ 9]	Level [ 9]	Level [ 9]	
<b>FUNDAMENTAL COMPONENT</b>  Subjects/ Courses/ Modules/Units	Communication, Ethics and Professionalism.	4			4
	Introduction to Clinical Research	4			4
	Introduction to Medical Literature	4			4
	Public Health Principles & International Health	4			4
	Principles and Techniques of Medical Education	4			4
<b>CORE COMPONENT</b>  Subjects/Courses / Modules/Units	Dissertation	72			72
	General Surgery	329			329
	M. Med. intermediate exam preparation	4			4
	Trauma (A&E) Surgery	38			38
	Intensive Care Unit - Surgical	37			37
	Introduction to Paediatrics Surgery	38			38
	Advanced -Acute Surgical Care	37			37
	Hepato-biliary-pancreatic Surgery	38			38
	Vascular Surgery	37			37

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	Colorectal Surgery	<b>38</b>			<b>38</b>
	Trauma (Operative) Surgery	<b>37</b>			<b>37</b>
	Breast and Endocrine	<b>38</b>			<b>38</b>
	Upper GI Surgery and/or Paediatric Surgery	<b>37</b>			<b>37</b>
<b>ELECTIVE/ OPTIONAL COMPONENT</b>  Subjects/Courses / Modules/Units	<b>Not applicable</b>				

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SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL	
TOTAL CREDITS PER NCQF LEVEL	
NCQF Level	Credit Value
Fundamental Level 9	20
Core Level 9	780
<b>TOTAL CREDITS</b>	<b>800</b>
<b>Rules of Combination:</b> <b>(Please Indicate combinations for the different constituent components of the qualification)</b>	
<b>Fundamentals level 9 contributes = 20 credit</b> <b>Core level 9 contribute = 720 credit</b> <b>Electives level 9 contributes = 0 credit</b> <b>Total level 9 = 800 credit</b>	

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ASSESSMENT ARRANGEMENTS
<p>Primary: 100% Summative (written exam Paper 1 and 2)</p> <p>Intermediate: 100% Summative (written: Paper 1 and 2)</p> <p>Final/FCS (SA)</p> <ul style="list-style-type: none"> <li>Requirements to sit for exams: weighting 25% <ul style="list-style-type: none"> <li>Portfolio and Dissertation: fulfilling minimum requirement</li> </ul> </li> <li>Examinations - Weighting 75% <ul style="list-style-type: none"> <li>Summative 100% (Clinical cases, OSCE, The general surgical and surgical pathology theoretical component – paper and viva voce and The anatomy and operative surgery theoretical component – paper and viva voce)</li> <li>Pass: At least an average of over 65% with some marks over 70%.</li> </ul> </li> </ul>



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## MODERATION ARRANGEMENTS

Examinations are moderated internally and externally by qualified and accredited general surgeons and related professionals as a quality assurance measures according to the policies of the ETPs.

The internal assessors should be qualified and accredited by BQA or any other recognized authority.

## RECOGNITION OF PRIOR LEARNING

Master's in Medicine in General Surgery qualification will be awarded based on the National and ETP's policies on Recognition of Prior Learning and Credit Accumulation and Transfer policy.


## CREDIT ACCUMULATION AND TRANSFER

The applicants who have completed one or more years of post-graduate training in other ETPs in similar or related qualification may apply for special consideration in accordance with ETPs policy on Recognition Prior Learning.

## PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

### Horizontal pathways (NCQF level 9)

- Master of Medicine in Anatomical Pathology
- Master of Medicine in Clinical Pathology
- Master of Medicine in Internal Medicine
- Master of Medicine in Public Health
- Master of Medicine in Paediatrics and Adolescent Health
- Master of Medicine in Obstetrician and Gynaecology
- Master of Medicine in Psychiatry
- Master of Medicine in Neurosurgery
- Master of Medicine in Paediatrics Surgery
- Master of Medicine in Surgical Oncology
- Master of Medicine in Cardiothoracic Surgery.

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### Vertical pathways (NCQF level 10)

- PhD in Simulation of Surgical Skills
- PhD in General Surgery.

### Employment pathways

- Specialist General Surgeon,
- Medical Academic – General Surgeon,
- Medical Researcher – General Surgeon, etc.

## QUALIFICATION AWARD AND CERTIFICATION

### Minimum standard

The candidate will be required to accumulate a total minimum credit 800 in fundamental module and core modules to acquire a Master of Medicine in General Surgery qualification award.

### Certification


On successful completion the candidate will be awarded a certificate in Master of Medicine in General Surgery.

## REGIONAL AND INTERNATIONAL COMPARABILITY

The proposed qualification generally compares well with similar trainings (scope and depth and are aligned to exit-level descriptors) in South Africa (Stellenbosch University) and United States of America (Vanderbilt University), M. Med and general surgery specialty.

However, what sets it apart from the qualifications examined is that there is provision for development of attributes such as rotations in orthopaedics, gynaecology & obstetrics, urology and neurosurgery, which are critical for a general surgeon practicing in Botswana and Africa in general.

The credits for M. Med in general surgery at Stellenbosch University is 480, while this one is 800. Except for the

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fundamental courses (20 credits) and additional attributes (orthopaedics, Gynaecology & Obstetrics, Urology & Neurosurgery) (62 credits) that UB included, most of the courses and durations of training are the same. We think the difference arises from the credit calculation metrics and other qualifications may not include learning incurred during service hours within their calculation of notional hours/credit value. (Refer to the attached credit calculation details of UB)

This M. Med. in General Surgery is different from Vanderbilt university general surgery training in including a research project in its curriculum; while Vanderbilt University has a provision of 1-3 years additional time for research training.

#### REVIEW PERIOD

The qualification will be reviewed every 5 years in line with the NCQF policy.

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