

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

SECTION A: QUALIFICATION DETAILS

QUALIFICATION DEVELOPER (S)	BOTHO UNIVERSITY
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TITLE	Bachelor of Science in Health Information Management	NCQF LEVEL	7
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FIELD	Health and Social Services	SUB-FIELD	Health Information Management	CREDIT VALUE	480
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<i>New Qualification</i>	✓	<i>Review of Existing Qualification</i>	
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SUB-FRAMEWORK	General Education		TVET		Higher Education	✓
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QUALIFICATION TYPE	Certificate	I	II	III	IV	V	Diploma	Bachelor	✓
	Bachelor Honours		Post Graduate Certificate		Post Graduate Diploma				

	Masters		Doctorate/ PhD	
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RATIONALE AND PURPOSE OF THE QUALIFICATION

RATIONALE:

The Human Resource Development Council published a document listing top occupations in demand in Botswana that was informed by national priorities as outlined in the VISION 2036, National Development Plan (NDP 11) and long-term strategies of the different sectors of the economy (2016). The document emphasizes that development of the human capital is essential in achieving the VISION 2036 pillars one of which is “Human and Social Development”.

For the Health Sector, the criteria used to draw up the list of the top 20 occupations included the following:


- Occupation has been indicated in the Health Sector Human Resource Development (HRD) Plan.

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- Occupation has been identified by Government as a scarce skill.
- An Occupation has been identified in the Botswana Integrated Health Service Plan (IHSP 2010-2020).
- An Occupation is mostly dominated by Non-Locals as opposed to Locals, Botswana Health Professions Council (BHPC) 2012/13 Annual Report, page 22 - 26.
- An Occupation was identified as a priority by the sampled Employers in the Health Sector (covering both the public & private sector). Analysis of data indicated the frequency of organizations prioritizing the occupations were recorded to determine eligibility for the list.
- Signal - An occupation is indicated in the HRDC Job Vacancy Database Analysis.
- Occupation addresses complexities and emerging – lifestyle diseases.
(HRDC, 2016).

The success of Health Sector Occupations, particularly the Public Health domain (Epidemiology, Biostatistics, Healthcare Management, Health Policy, Health Economics) is dependent on the availability of robust health information. This is only possible if well trained Health Information Professionals are available. The Health Information Professions field comprises of Health Information Management (HIM), Health Informatics (HI) and Health Information Communication Technologies (HICT) (Global Health Workforce Council, 2015).

Health Information Management (HIM) is the practice of acquiring, analysing, and protecting digital and paper-based medical and health information vital to providing quality patient care and maintaining the daily operations management of health information and electronic health records (Global Health Workforce, 2015). BSc in Health Information Management is intended to train HIM professionals who ensure that an organisation has health information available to it when and where it is needed, while maintaining the highest standards of data integrity, confidentiality, and security. These key aspects of health information will be achieved through four (4) years of multidisciplinary training and preparation of the right candidates in the field of HIM. This is due to the fact that these professionals often serve in bridge roles that connect clinical, operational, administrative, and financial functions. Because of their multiple interfaces in health and allied health settings, HIM personnel affect

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the quality of patient information and patient care at every point in the healthcare delivery cycle (Global Health Workforce, 2015).

Market Need Analysis:

The Market Survey for the Bachelor of Science in Health Information Management was conducted with the aim to sample stakeholders’ perceptions and opinions regarding the market demand for Health Information Management qualification, preferred level at which for the qualification, preferred mode of study/delivery, competitors’ pricing, skills requirement for the qualification, market demand for graduates, sufficiency of the qualification and possible partnership opportunities. To realize these objectives, both structured and semi-structured interviews were developed and conducted among current students, potential students and employers based in Gaborone, Maun and Francistown. This study adapted both phenomenological (qualitative) and positivistic (quantitative) philosophies of data collection - namely desk research, telephonic interviews, face-to-face interview and In-depth Interviews (IDIs) among key stakeholders. The aforementioned data triangulation approaches were employed to ensure that each approach’s weakness is compensated for by another approach and that the final results of the survey are accurate, reliable and dependable.

The enumerators conducted interviews with stakeholders as outlined above. Quantitative data was analyzed using pre-structured SPSS database, after scrubbing. Framework analysis technique was used to analyze qualitative data, several other techniques namely data tabulation (frequency distributions, percentage distributions and cross-tabulation data), descriptive data, data disaggregation, moderate and advanced analytical methods were also used. Discourse analysis was carried out on the corpus of verbatim comments to add an additional dimension to the findings, looking at not only what stakeholders said, but also how and why they may have said it.

Findings showed that generally, HIM is a fairly new field in Botswana and sometimes respondents lacked familiarity with the subject matter. This indicates an opportunity to educate the general population about the HIM profession. Respondents representing key stakeholders such as the Ministry of Health showed a modest interest in the qualification and felt that the qualification should be offered at all levels from certificate right up

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to postgraduate level. All modes of study had their proponents with the majority preferring face-to-face campus learning, but most working respondents preferred the on-line or distance learning mode.

PURPOSE:


The purpose of the qualification is to produce graduates who, upon completion, should;

- Support the provision of quality patient care and maintaining the daily operations management of health by acquiring, analyzing, and protecting digital and paper-based medical and health information.
- Ensure that an organization has health information available to it when and where it is needed, while maintaining the highest standards of data integrity, confidentiality, and security.
- Demonstrate knowledge, skill and competencies in Information Governance, Health Information Systems, Medical Terminology, Disease Coding, General Management, Analytics and Statistics, Ethics and Communication.

ENTRY REQUIREMENTS (including access and inclusion)

Entry into this qualification is through any one of the following requirements:

1. Certificate IV, NCQF level 4 (General Education or TVET).
2. RPL and CAT will be provided for access to the qualification using ETP Policies in line with the National Policies

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SECTION B QUALIFICATION SPECIFICATION	
GRADUATE PROFILE (LEARNING OUTCOMES)	ASSESSMENT CRITERIA
1. Support decision-making in healthcare practice.	1.1 Use data mining models and techniques to search for and access hidden healthcare data. 1.2 Apply statistical methods to analyse healthcare data, including mined data, to reveal trends and relevant information. 1.3 Use the findings from data analysis to advise decision makers in healthcare.
2. Identify and assess the various factors that affect an organization's medical information management.	2.1 Identify internal and external factors that affect health information management in an organisation 2.2 Evaluate the impact of these factors on the organization 2.3 Make change recommendations, based on the evaluation, for change to the system.
3. Manage activities of the health information management department of a healthcare or research organization.	3.1 Manage other staff members in health care information positions 3.2 Review medical records for completeness, accuracy, and timeliness 3.3 Organize and maintain the clinical databases 3.4 Track patient outcomes 3.5 Electronically record data with information technology systems 3.6 Report on patient data as part of studies and analysis
4. Provide coding services in healthcare organisations and other organisations that generate, store and or utilize healthcare data.	4.1 Use the ICD-10 coding system to code diseases, medical conditions, and procedures. 4.2 Assign clinical coding for insurance purposes 4.3 Assist insurance fraud/abuse investigations through analysis of coded data and insurance claims.
5. Maintain high health data quality, reliability, and effectiveness. Identify appropriate health information management technology.	5.1 Evaluate and recommend appropriate information technology requirements 5.2 Apply health information technology standards for data content, health information exchange, and interoperability. 5.3 Collect, record, maintain and transmit high quality data quality (complete, accurate, consistent, timely, and secure).

<p>6. Identify and describe health information software and/or hardware components that meet requirements for a given organization.</p>	<p>6.1 Evaluate health information management software and hardware to ensure they meet organizational specifications (costs, quality, time, energy efficiency, information security, and data protection).</p> <p>6.2 Find new ways to protect patient privacy in health care settings</p> <p>6.3 Assess health information software and/or hardware for upgradability and compatibility with other components that the organization already has or intent to acquire in the near future.</p>
<p>7. Communicate effectively with all stakeholders in of health information.</p>	<p>7.1 Apply the communication process in dealing with the various stakeholders of health information.</p> <p>7.2 Write effectively in conveying health information to stakeholders.</p> <p>7.3 Apply critical thinking and synthesis in addressing health information requirements in the organization,</p> <p>7.4 Work in a team (learning and working with others, being an effective group member.)</p>
<p>8. Interpret and implement requisite laws, regulations, standards and organizational policies in the practice of health information management.</p>	<p>8.1 Use organizational policies and processes for access, management, and permissible uses of data.</p> <p>8.2 Apply jurisdictional health law, regulation, and accreditation standards to create and maintain patient health records.</p> <p>8.3 Evaluate organizational risk and make recommendations (containment plans) to ensure the safety and security of information from both external and internal threats.</p>
<p>9. Apply principles and procedures of project management to health information management projects.</p>	<p>9.1 Conceive and initiate appropriate and beneficial health information management projects.</p> <p>9.2 Planning health information management projects</p> <p>9.3 Execute planned health information management projects</p> <p>9.4 Monitoring health information management projects to ensure goals are being mate.</p>
<p>10. Conduct or collaborate in health-related research.</p>	<p>10.1 Identify a research topic and problem in health information management.</p> <p>10.2 Research/investigate the identified problem.</p> <p>10.3 Produce a research report.</p> <p>10.4 Publish the research findings in a credible, peer-reviewed journal.</p>

11. Promote team motivation for the achievement of organizational goals.

- 11.1 Set goals that motivate the team.
- 11.2 Apply various coping skills to manage work related pressure.
- 11.3 Formulate reward systems, not necessarily monetary, to motivate health information management personnel.
- 11.4 Apply workplace design principles to create a stimulating work environment for health information management personnel,

SECTION C	QUALIFICATION STRUCTURE					
COMPONENT	TITLE	Credits Per Relevant NCQF Level				Total (Per Subject/ Course/ Module/ Units)
		Level [5]	Level [6]	Level [7]	Level [8]	
FUNDAMENTAL COMPONENT <i>Subjects/ Courses/ Modules/Units</i>	Fundamentals of Health Insurance	---	6	---	---	10
	Computer and its Essentials 1	5	---	---	---	10
	Business Management 1	5	---	---	---	10
	Computer and its Essentials 2	---	6	---	---	10
	Business Management 2	---	6	---	---	10
	Principles of Marketing	5	---	---	---	10
	Academic Writing for STEM	---	6	---	---	10
	Introduction to E-Health	5	---	---	---	10
	Introduction to Global Health	5	---	---	---	10

CORE COMPONENT <i>Subjects/Courses/ Modules/Units</i>	Research Project 1 (Proposal)	---	---	7	---	10
	Professional Practice in HIM	---	---	7	---	40
	Research Project 2 (Dissertation)	---	---	---	8	20
	Health Ethics	---	6	---	---	10
	Disease Coding	---	---	7	---	20
	Introduction to Pathology & Pharmacology	---	6	---	---	20
	Research Methods	---	---	7	---	10
	Health Information Risk Management	---	---	7	---	10
	Introduction to Medical Terminology	---	6	---	---	20
	Medical Databases	5	---	---	---	10
	Computing in Health Administration	---	6	---	---	10
	Biostatistics	---	---	7	---	20
	Data Management & Information Governance	---	---	7	---	20
	Health Information Systems	---	---	7	---	20
	Principles of Community Health	---	6	---	---	10

	Entrepreneurship & Innovation	---	---	---	8	20
	Law & HIM Practice	---	6	---	---	10
	Introduction to Anatomy & Physiology	---	6	---	---	20
	Basic Life Support and Emergency Care	5	---	---	---	10
	Operations Management	---	6	---	---	10
	Epidemiology	---	6	---	---	20
	Medical Transcription	---	6	---	---	10
	Procurement & Tender Management	---	6	---	---	10
ELECTIVE/ OPTIONAL COMPONENT <i>Subjects/Courses/ Modules/Units</i>	Introduction to Financial Accounting	5	---	---	---	10
	Fundamentals of Financial Management	5	---	---	---	10
	Health Economics	---	---	7	---	10
	Project Management	---	---	7	---	10
	Human Resources Management	---	---	7	---	10

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SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL

TOTAL CREDITS PER NCQF LEVEL

<i>NCQF Level</i>	<i>Credit Value</i>
5	80
6	190
7	170
8	40
TOTAL CREDITS	480

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

- This qualification will have at least 480 credits and take at least four years to complete including a full semester internship under the normal fulltime mode of study.
- The credit combination for this qualification is from 90 fundamental components, 360 core components and the remaining 30 is from elective components

ASSESSMENT ARRANGEMENTS

This qualification is assessed:

There will be integrated assessment which will include both formative and summative assessments. The weightage for formative assessment is 40% and the weightage for summative assessment is 60%.

MODERATION ARRANGEMENTS

This qualification is moderated as follows:

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There would be pre-moderation and post-moderation of all assessments from internal and external moderators that are registered and accredited by the BQA.

RECOGNITION OF PRIOR LEARNING

There will be a provision for awarding of the qualification through Recognition of Prior Learning (RPL). This will be done in line with the national RPL Policies.

CREDIT ACCUMULATION AND TRANSFER

There will be a provision for the transfer of credit accumulated through completion of components of this qualification or similar/equivalent components of other qualifications. This will be done in line with the national CAT Policies.

PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

LEARNING PATHWAYS

After completing Bachelor of Science in Health Information Management qualification, the students can proceed to pursue higher studies in the same or related fields such as bachelor's degree Honours or Post-Graduate Certificate (NCQF level 8).

Vertical Progression Pathways

Honours Degrees

- BSc Honours in Computer Science for Health (e.g University of Kent, UK)
- BSc Honours in Health Information Systems Management (NUST, Namibia-Postgraduate **Diploma**)

Master's Degree

- Master of Health Informatics & Health Information Management (University of Washington)
- Master of Science in Health Information Management) (Kenyatta University, Kenya)
- MSc in Epidemiology
- Masters' Degree in Health Information Management (Texas State University, Purdue Global University-Online)

Horizontal Progression Pathways

Students enrolled for the BSc in Health Information Management may choose to study horizontally into related fields if they are interested in gaining more knowledge and exploit opportunities in those areas. These include but are not limited to:

- Bachelor of Science in Health Informatics (University of Johannesburg, SA)
- Bachelor of Science in Healthcare Management (University of Essex- Online)
- Bachelor of Science in Health and Social Care: Administration and Management (London South Bank University)

EMPLOYMENT PATHWAYS

- Health Information Managers
- Health Information Officers
- Health Data Coders
- Medical Transcriptionists
- Public Health Research Collaborators/Assistants


QUALIFICATION AWARD AND CERTIFICATION

The learner will be awarded a degree certificate (Bachelor of Science in Health Information Management) on fulfilling the minimum credit value of 480 credits. This qualification does not have exit awards. Therefore, if the candidate does not meet the prescribed minimum standards of the qualification, the learner will exit with a transcript. There will be provision of certificate when awarding the qualification.

REGIONAL AND INTERNATIONAL COMPARABILITY

This Qualification was compared with various universities running similar qualifications. The following universities and their qualifications were taken for the comparisons:

- Local: Nil (No other local University offers a BSc in HIM)
- Regional: Kenyatta University, Kenya (Bachelor of Health Records & Information Management)

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- International: The University of Kansas, USA (Bachelor of Science in Health Information Management)
- International: Curtin University, Australia (Bachelor of Science Health Science- Health Info Management Major)

Summary (Similarities and Differences):

Kenyatta University, Kenya (Bachelor of Health Records & Information Management)


Kenyatta University (KNU) offers a BSc in Health Records and Information Management whereas this qualification will offer a BSc in Health Information Management. In terms of entry requirements, the KNU qualification targets A-level graduates and those with diplomas in the relevant areas and wishing to advance. This qualification on the other hand targets Form 5 graduates in Botswana and those with comparable or better qualifications internationally as well as diploma holders in relevant fields. Both qualifications are offered over a course of four (4) years with each academic year consisting of two semesters for full time students. KNU uses a 'unit system' and a student is awarded the degree after taking and passing all units (minimum 48 units), University Common Units (3), School Common Units (1) and a Research Project (2 units), a total of 52 units. This qualification uses a credit hour system where 1 credit hour is equivalent to 10 credits. A student is awarded the degree after passing all core and elective modules amounting to 480 credits. Both the qualifications share many common modules such as Biostatistics, Human Anatomy and Physiology, Human Pathology and Pharmacology and Computer Applications.

The University of Kansas, USA (BSc in Health Information Management)

The University of Kansas offers a BSc in Health Information Management just like this qualification. The KU qualification incorporates professional practice and internship experiences throughout the qualification whereas this qualification has an internship period in the 8th semester. However, practical and projects are incorporated in this qualification throughout. KU uses a credit hour system, and the qualification consists of a total of 62 credit hours as compared to 48 credit hours (480 Credits) in this qualification. Both qualifications share many common modules like Health Information Management, Research Methods and Professional Practice.

Curtin University, Australia (BSc Health Science- Health Info Management Major)

Curtin University (CU) offers a BSc in Health Information Management combining scientific, technical, and administrative expertise in Health Information Management. The CU qualification is accredited by the Health Information Management Association of Australia (HIMAA). The CU qualification (HIM major) is three (3) years long and follows a Health Sciences First Year Stream that is common to all qualifications in its Faculty of Health Sciences, as compared to this qualification where students study over a duration of four (4) years. CU uses a

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system combining hours per week with a credits system. All the CU modules are 25 credits although the required hours per week per module vary. In total, CU students study 600 credits. Comprising of 200 credits per year (100 credits per semester).

REVIEW PERIOD

5 years

