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| | | Effective Date | 01.08.2022 |

| SECTION A: QUALIFICATION DETAILS | | | | | | | | | | | | | | |
|--|---|------------------------|--|------------------|--|---------------------------|------|----------------------|---------------------|-----|-----------------------|------------------|--|-------------|
| QUALIFICATION DEVELOPER (S) | | UNIVERSITY OF BOTSWANA | | | | | | | | | | | | |
| TITLE | Master of Philosophy in Natural Resource Management (MPHIL) | | | | | | | | | | NCQF LEVEL | 9 | | |
| STRANDS (where applicable) | 1. N/A | | | | | | | | | | | | | |
| FIELD | Agriculture and Nature Conservation | | | SUB-FIELD | | Nature Conservation | | | CREDIT VALUE | 264 | | | | |
| New Qualification | | | | | | x | | Legacy Qualification | | | | | | |
| SUB-FRAMEWORK | | General Education | | | | | TVET | | | | | Higher Education | | x |
| QUALIFICATION TYPE | Certificate | I | | II | | III | | IV | | V | | Diploma | | Bachelor or |
| | Bachelor Honours | | | | | Post Graduate Certificate | | | | | Post Graduate Diploma | | | |
| | Masters | | | | | | x | | Doctorate/ PhD | | | | | |
| RATIONALE AND PURPOSE OF THE QUALIFICATION | | | | | | | | | | | | | | |
| RATIONALE: <p>Natural resources are key determinants of livelihood strategies, environmental sustainability, peace and economic prosperity. It is therefore important that they are managed well for the economic growth and stability of a country. Botswana's economy is anchored on the availability and sustainable utilization of natural resources such as land, water, minerals, biodiversity and wildlife. In 2006, the University of Botswana realized the need to train the citizenry on management of natural resources through research and education. This was an effort to contribute to the realization of the national Vision 2016 which advocated for (i) an educated and informed nation through accessible quality education that is able to adapt to the changing needs of the nation and by</p> | | | | | | | | | | | | | | |

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creating opportunity for continued education, (ii) the development of regional leaders in the production and dissemination of information, (iii) contributing to scientific and technological growth in the future, and (iv) promoting sustainable resource use.


In order to maintain and move the economy to a higher status which will create more jobs and wealth, Botswana has recognised the need to invest in its human resources, hence the next step in the drive towards a knowledge-based economy as made explicit in Vision 2036. The new Vision further emphasizes that the citizenry "...will be knowledgeable with relevant quality education that is outcome based with an emphasis on vocational and technical skills as well as academic competencies" (also in SDG4). The Okavango Research Institute (ORI) of the University of Botswana strives for excellence in coupled dryland-wetland research and natural resource management. The aspirations of ORI are aligned to Botswana's Human Resource Development (HRD) objectives which also seek to transform Botswana from a factor-driven economy to a globally competitive and knowledge-based economy through its wing of the Research, Innovation, Science & Technology (RIST). The RIST emphasizes on addressing national priorities and developing a critical mass in the areas of science, engineering and technology, to drive Botswana's research agenda.

In that regard, ORI developed a Master of Philosophy (MPhil) in Natural Resources Management, which is a critical effort towards the fulfilment of Botswana's Vision 2036, the attainment of the SDGs (1,2 4, 5), and the University of Botswana's Strategic Plan of 2020-2029.

The MPhil in Natural Resource Management is designed to provide students with the ability to conceive, design and implement research to answer societal questions and solve societal problems. It is also designed as an introductory route to a PhD qualification of the same name.

The MPhil qualification is aligned with the Outcomes Based Education and Training (OBET) system and Botswana National Credit and Qualifications Framework (NCQF) as required by the Botswana Qualification Authority to ensure an overall understanding of comparable levels of attainment at the Master's and Doctoral levels throughout the SADC region. An important guiding need for this qualification is the Institute's key role as a scientific backstop for sustainable management of the Okavango Delta, and of the greater Cubango-Okavango River Basin. Research done by our MPhil students is frequently aimed at addressing identified issues and problems in this context, and the science and data are synthesised to provide material for evidence-based decision-making and policy development. The Ministry of Environment and Tourism, and the Permanent Okavango River Basin Commission (OKACOM) are key clients of this research.

In brief summary, the MPhil in Natural Resources Management is similar in some respects with regional and international qualifications, with a strong research weighting. It differs from most of those analysed in that it does not have a heavy course-work component (like those of the Indian Institute of Forest Management, the MPhil/PhD qualifications of the University of the West Indies and the MPhil of Oxford). In three of the qualifications compared, the MPhil was regarded more as a step towards a PhD than an end in itself. At ORI, many students end at the Master's level. The comparison is elaborated further in the Comparability Matrix attached.

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PURPOSE: (itemise exit level outcomes)

The MPhil in Natural Resource Management qualification will equip graduates with advanced knowledge, skills and competences to:


- Conduct independent research that informs policy on natural resource management.
- Demonstrate sound scholarship that contributes to the advancement of knowledge in various aspects of natural resources management field.
- Acquire competency in natural resource management for sustainable environmental protection
- Design and implement frameworks for natural resource management including monitoring and evaluation.
- Develop human capacity for knowledge transfer for employment and in-service training

MINIMUM ENTRY REQUIREMENTS (including access and inclusion)

Admission into the MPhil in Natural Resources Management qualification (NCQF Level 9) shall be on:


- Candidate should have acquired a Bachelor's degree, NCQF Level 7 or an equivalent
- Recognition of Prior Learning (RPL and Credit Accumulation (CAT) will be applicable and considered for access and inclusion in line with relevant ETP and national policies.

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| SECTION B QUALIFICATION SPECIFICATION | |
|---|---|
| GRADUATE PROFILE (LEARNING OUTCOMES) | ASSESSMENT CRITERIA |
| LO 1. Identify and articulate research needs, aims and objectives for problem solving | AC 1 Develop and defend a research proposal AC 2 Produce a term paper on selected topics |
| LO 2. Conduct original and independent research | AC 1 Develop and defend a research proposal AC 2 Collect data following appropriate methods AC 3 Analyse and interpret data using relevant tools AC 4 Produce at least one peer-reviewed publication AC 5 Produce a thesis for examination |
| LO3. Demonstrate sound scholarship that contributes to the advancement of knowledge in various aspects of natural resources management field | AC 1 Produce at least one peer-reviewed publication AC 2 Produce and present a thesis for examination AC 3 Participate in scientific debates at both the national and international fora |

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|  BOTSWANA Qualifications Authority | BQA NCQF QUALIFICATION TEMPLATE | Document No. | DNCQF.P01.GD02 |
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| SECTION C | | QUALIFICATION STRUCTURE | | | |
|---|---|--|------------------|----------------------|----------------------|
| COMPONENT | TITLE | Credits Per Relevant NCQF Level | | Total Credits | |
| | | Level (9) | Level | Level (9) | Level |
| FUNDAMENTAL COMPONENT <i>Subjects/ Courses/ Modules/Units</i> | Research Methods Course | 9 | | 3 | |
| | Term paper | 9 | | 6 | |
| | Research proposal development | 9 | | 15 | |
| | MPhil Thesis | 9 | | 240 | |
| | TOTAL NUMBER OF CREDITS | | | 264 | |
| CORE COMPONENT <i>Subjects/Courses/ Modules/Units</i> | | | | | |
| | | | | | |
| STRANDS/ SPECIALIZATION | <i>Subjects/ Courses/ Modules/Units</i> | Credits Per Relevant NCQF Level | | | Total Credits |
| | | Level [] | Level [] | Level [] | |
| 1. | | | | | |
| 2. | | | | | |

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| SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL | |
|---|---------------------|
| TOTAL CREDITS PER NCQF LEVEL | |
| NCQF Level | Credit Value |
| 9 | 264 |
| TOTAL CREDITS | 264 |
| Rules of Combination: (Please Indicate combinations for the different constituent components of the qualification) | |
| Students will be required to take all components of the qualification indicated in Section C above as they are <u>mandatory</u> for students registering for the Master of Philosophy qualification [MPhil] | |

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ASSESSMENT ARRANGEMENTS

Assessment arrangements shall be as follows:

Formative assessment – 70%

- Research Methods (Continuous Assessment: Tests, Assignments and Seminars)
- Term Paper (examined by the student's thesis supervisory board)
- Research Proposal Development (Internal review and oral examination)

Summative assessment – 30%

- MPhil Thesis (Examination of the written thesis, and oral defence)

Assessment will be undertaken by BQA accredited and registered assessors

MODERATION ARRANGEMENTS

Internal Moderation

1. Internal moderation will be conducted by an academic member of staff who is accredited by BQA as an assessor/moderator, and is experienced and competent in the area of the work to be examined, preferably an academic scholar with a PhD degree and has published widely in the subject area


External Moderation:

1. External moderation will be conducted by a senior academic at a level of a senior scholar or professor from another university or equivalent institute who is competent in the area of the work to be examined. The individual should have a PhD degree, and published widely in the subject area and is accredited by a nationally recognized qualification authority

Moderation will be undertaken by BQA accredited and registered assessors

RECOGNITION OF PRIOR LEARNING

Recognition of Prior Learning will be considered for admission to the qualification and it will be evaluated on a case-by-case basis by the institution according to its policies. Currently, there is commitment and provision within the institution and national policies to award this qualification through RPL system.

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CREDIT ACCUMULATION AND TRANSFER

MPhil Qualification requires the fulfilment of all the components listed in section C above.

The duration for the MPhil qualification shall be a maximum of four semesters for full-time students and eight semesters for part-time students (264 nominal credits).

PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

1. Education Pathways

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

Students who have completed Research Methods course can transfer their credits to other graduate qualifications such as;

- Master's in Environmental Science,
- Master's in Development Studies,
- Masters in Natural Resource Management at local, regional and international universities.


(ii) Vertical Articulation (qualifications to which the holder may progress to)

- Progression to PhD in Natural Resource Management
- PhD in Environmental Sciences or any area of interest within natural resource conservation and management (social and natural sciences) at local, regional and international universities.

2. Employment Pathways

The graduates can be employed as:

- Researchers in academic institutions, government departments, private organizations and NGO's
- Lecturers/teachers in institutes of higher learning
- Self-employed (e.g. be independent researchers, documentary and film makers).
- Natural resource managers (e.g. in game parks, nature reserves, biodiversity centres, botanical gardens, archaeological sites, museums, dams, water resources, etc.)
- Environment and development managers and consultants
- Media specialists (filming industry)

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QUALIFICATION AWARD AND CERTIFICATION


- The qualification award and certificate will be issued when all the requirements for the qualification have been met and the claim authenticated.
- Provision for certificates shall reflect the agreed title, the level, the date of the issue of the certificate, and the logos and credit points (where applicable);
- The certificate shall clearly and accurately state the full name of the qualification, name of the person, identity number to whom the qualification is awarded and date of the award;
- The certificate shall contain sufficient security features to guard against forgery and/or aid identification of false copies of the certificate. Security features include watermarks, invisible UV features, embossment, numbering, anti-copying format, colouring, etc.); a seal and /or coding identifier to the awarding body and any relevant quality assurance body, and displays the signatures of relevant persons from such bodies.
- It shall be ensured that copies of certificates are certified by authorised staff in accordance with organisational requirements

SUMMARY OF REGIONAL AND INTERNATIONAL COMPARABILITY

Refer to the Quals Comparability Matrix attached.

The MPhil in NRM is similar in many ways to the MPhil qualifications offered in South Africa (Stellenbosch University, University of Cape Town) in terms of its multi-disciplinary approach to natural resource or environmental management. The duration of the qualification is 1-2 years, with the first year normally used for courses or proposal development. The qualification offers a 3-credit Research Methods course (ORC600) in Year 1 to provide students with knowledge and skills in using applied statistics and research methods. The MPhil NRM is mainly research based, and students are expected to produce a publication– type thesis which enhances student skills in producing publications, which subsequently increases publication production at the institute. The qualification also admits public officers with adequate experience in research and management, hence helps in capacity building of in-service managers and policy makers.

The ORI's MPhil in Natural Resource Management is also compares well in content, modules, duration with MPhil qualifications in natural resources or environmental management offered in India (Indian Institute of Forest Management), United Kingdom (University of Oxford), and West Indies (The University of West Indies (UWI)). The University of West Indies in West Indies offers this course at a Centre of Resource Management and Environmental Studies and the course is called MPhil/PhD in Natural Resources Management/Environmental Studies.

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| REVIEW PERIOD |
| [2023-2028]. The qualification will be reviewed every 5 years |

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