

# **DOCTOR OF PHILOSOPHY (PH.D) IN INFORMATION AND COMMUNICATION TECHNOLOGY (NQF LEVEL 10)**

## **Purpose of the Ph.D Qualification in Information and Communication Technology (ICT)**

The purpose of this qualification is to provide opportunity to deserving students from IUM and other universities who have successfully completed Masters degree programmes in various fields of ICT and related fields, and who fulfill the requirements for admission to the degree of Doctor of Philosophy in ICT.

## **Outcomes of the Ph.D Qualification in Information and Communication Technology**

Holders of this qualification are able to:

- Demonstrate comprehensive, systematic and in-depth mastery of knowledge, research and analytical skills used in the formulation of new, cutting-edge learning, practice principles or processes relevant to Information and Communication Technology.
- Demonstrate advanced knowledge of exiting discourses on issues related to the area of research and the thesis.
- Exhibit knowledge of advanced research methods and methodology and techniques for data collection and analysis using qualitative, quantitative and/or mixed methods.
- Formulate and undertake research on new areas and generate new ideas that add value and new knowledge to the area of specialization.
- Contribute to development discourses and paradigms at national, regional and international level in the area of their thesis specializations;
- Apply the knowledge acquired to improve theory and practice in their specific area of specialization;
- Use research skills acquired to advance research in their areas of specialization after graduation; and
- Disseminate widely the research results through scholarly publications, analytical briefs and contributions to academic and policy platforms in Namibia and abroad.

## **Admission requirements**

- a. A Masters Degree registered at NQF Level 9 in a relevant field of ICT.
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- b. Any qualification at NQF Level 8 in a related discipline plus either at least five years of work experience at a senior management or professional level plus the publication of a peer-reviewed paper(s) or other publication(s).

It is also a requirement that people entering into supervised learning leading to the award of this qualification have been recognized as having attained or shall undertake noncredit bearing courses at NQF Level 8 or above relating to:

- postgraduate report writing and academic writing in a variety of genre or styles
- the proficient use of advanced qualitative research methods
- the proficient use of advanced quantitative research methods and applications

- the proficient use of information and communication technologies relevant to the analysis and presentation of data
- understandings of ethical practices in research
- awareness of current research practices.

### **Delivery requirements**

The attainment of this qualification requires significant levels of self-directed study and research actions that require access to specialized research resources and/or facilities. The availability of such resources and/or facilities shall be verified by the IUM Postgraduate Committee.

Students preparing for the award of this qualification must be supervised by recognized experts in the field of study. At least one of these recognized experts must hold a PhD Degree, preferably in the field of study. Supervisors allocated to students shall be approved by the Postgraduate Committee and shall act in accordance with instructions issued by the Committee and approved by IUM Council.

- In preparation for field work students will be expected to sharpen their general conceptual analysis and research methodology in order to bring them up to date with new theoretical knowledge and advanced qualitative, quantitative and mixed methods of research approaches.
- Students must submit a draft research proposal on a topic selected in consultation with their supervisors.
- Preparation for the thesis work will begin during the general conceptual analysis and research methodology phase that will focus on broad education issues. The research methodology phase will also be used to provide guidance on proposal writing and supervisors will be appointed before the beginning of the phase.
- As the research methodology course proceeds students will be guided on the preparation of their research design starting with a concept paper stating the problem, its background, why it is important to undertake research on it and its relevance to the development of new knowledge that may address the problem in a specific area. The concept paper will be developed into a research proposal through various stages with the support of supervisors leading to the development of a draft research proposals and research design.
- The drafts will be presented for peer review by fellow students and comments by supervisors.
- After the first presentation students will incorporate comments from peers and supervisors and prepare the final draft research design and/or field research or data collection plan for submission to their supervisors.
- The final research design and plan will be approved by the higher degrees/postgraduate committee of senate on recommendations from supervisors and forwarded to Senate for noting only.
- During field work students will work independently but will remain in close contact with their supervisors.
- As the field work is completed supervisors will provide guidance, coaching, counselling and other support on how to prepare a thesis.
- First drafts of the theses will be presented for peer review and comments from supervisors and other persons at IUM interested in the area of study. Students can also invite colleagues from their places of work or interested persons from the places where research was conducted.
- After presentation students will incorporate comments and submit their theses for external and internal examination.
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## Assessment arrangements

The award of this qualification first requires the presentation and defence of a research (thesis/dissertation) proposal that is accepted by the Higher Degrees/Postgraduate Committee of Senate. As a minimum, the dissertation proposal must comply with the format specified by the Committee and be inclusive of:

- a. A review of literature relevant to the proposed area of research and which clearly establishes a conceptual framework upon which the research problem is based and provides insight into existing knowledge related to the problem.
- b. A clear outline of the purpose of the research study and the research questions, the relevant theoretical and/or conceptual framework on which the study shall be based, any delineations regarding the scope of the study, and defines terms specific to the study.
- c. A clear outline of the research design and procedures, data collection and analysis methods to be applied, and measures to ensure the research shall be ethical and, where relevant, cognisant of the need to protect the welfare and wellbeing of any persons who and/or environs that are the subject of the research.
- d. A proposed timeline for the completion of the research and the presentation of a thesis and/or associated innovative or creative works.

The award of this qualification shall ultimately depend on the recommendation made by a panel of independent experts to the Postgraduate Committee who, in applying current international standards, would consider that a thesis submitted to the panel and defended by the candidate:

- a. Represents scholarly and/or innovative work significantly higher than a Masters degree in that it represents comprehensive, systematic and in-depth mastery of knowledge, research and analysis techniques relevant to the field of study, and
- b. Contributes significantly and originally to the ideas, practices and current debates at the cutting edge of the field of study, and
- c. Warrants publication and/or presentation as a peer-reviewed work.

There shall be at least three examiners for each thesis. The examiners shall be experts/specialists in the field of the study approved by Senate on the recommendation of the Faculty Postgraduate Committee. At least one of the examiners shall not be an employee of the IUM and shall not have been one of the supervisors of the candidate being examined.

All the processes of the PhD programme shall be conducted under the oversight of the each faculty under the supervision and/or coordination of the Postgraduate Committee and normally all external examiners shall be senior academics at Senior Lecturer level and above with considerable experience in teaching and research at postgraduate studies level and at least three years after their PhD graduation.

## Courses

<b>Course Title</b>	<b>Outcomes of Learning</b>	<b>Level</b>	<b>Credits</b>
Conceptual Analysis & Research Methodology	Demonstrate highest level of skills for critical enquiry, theoretical and discourse analysis and apply in-depth mastery of advanced research methods and techniques for data collection and analysis in Information and Communication Technology.	10	120
Full PhD Thesis (Dissertation)	Demonstrate a capacity to conduct independent research and make original contribution to the body of knowledge Information and Communication Technology.	10	240