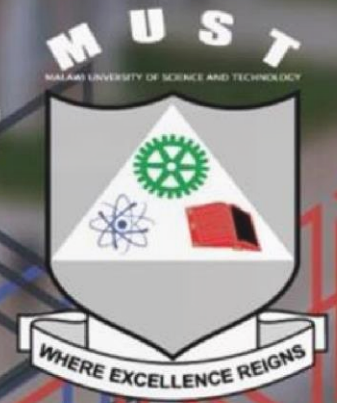


MALAWI UNIVERSITY OF SCIENCE & TECHNOLOGY



ADMISSION OF POSTGRADUATE STUDENTS FOR THE 2024/25 ACADEMIC YEAR

The Malawi University of Science and Technology (MUST) has limited spaces which it would like to fill by admitting interested Malawians and non-Malawians who are qualified, able and willing to pay the prescribed fees in its postgraduate (PG) programmes.

1.0 POSTGRADUATE PROGRAMMES

1.1 Masters Programmes

1.1.1 Master of Science in Medical Microbiology

This is a two-year programme that is offered over four semesters. In the first year, students take taught courses using a combination of face-to-face and online lectures. The lectures will be offered on a full-time basis during which the candidates will periodically be taught and allocated time to work on assignments after classes. During the second semester of the second year, candidates will undertake a research project which is relevant to Medical Microbiology. At the end of the project, the candidates will submit a well-structured Dissertation that has been reviewed and approved by their supervisors.

1.1.2 Master of Science in Diagnostic Ultrasound

This is a two-year programme that is offered over four semesters. In the first year, students take taught courses using a combination of face-to-face and online lectures. The lectures will be offered on full-time basis during which the students cover all the modules allocated for the specific semester and are allocated time to do assignments. Due to the nature of the programme, candidates will spend substantial amount of time

conducting medical imaging practical sessions. In the second year, candidates will conduct a research project under the supervision of an expert in imaging field focusing on diagnostic ultrasound. At the end of the project, the candidates will submit a well-structured Dissertation that has been reviewed and approved by their supervisors.

1.1.3 Master of Science in Infection and Immunity

This is a two-year programme that is offered over four semesters. In the first year, students take taught courses using a combination of face-to-face and online lectures. The lectures will be offered on a full-time basis during which the candidates will periodically be taught and allocated time to work on assignments after classes. During the second semester of the second year, candidates will undertake a research project which is relevant to Infection and Immunity. At the end of the project, the candidates will submit a well-structured Dissertation that has been reviewed and approved by their supervisors.

1.1.4 MSc in Disaster Risk Management

The programme is aimed at building capacity and expertise in managing disaster risks and dealing with disasters. It will impart knowledge and skills for minimizing both economic and human losses arising from natural and anthropogenic hazards. The programme is designed to train professionals and equip them with in-depth knowledge and skills to deal with disasters and their interrelated global issues in the areas of climate change, global warming and socio-economic implications. This is a two-year programme that is offered over four semesters. In the first year, students take taught courses using a combination of face-to-face and virtual lectures, which build upon the prior knowledge and experience of the students with a relevant undergraduate degree in the fields of geography, earth sciences, climate sciences, resource/agricultural economics, social sciences, environmental sciences, water resources, and other related fields. Those with an Honours degree in the fields listed above shall also be eligible for enrolment/admission. In the second year, students undertake research in a related area of interest to them.

1.1.5 Master of Science in One Health

The One Health curriculum is to build capacity and expertise that can address emerging issues of ecosystems, animal and human health to minimize both economic and human losses due to crises arising from natural and anthropogenic situations. The specific objective is to train and educate workforces, who are equipped to deal with the interrelated and interconnected challenges of human, animal and environmental health. 'One Health' is a public health approach which promotes the health of humans, animals and the environment in all policies, practices and programmes. It is closely linked to the ecological health with the underlying premise that the health and well-being of humans and animals (including livestock) cannot be sustained if the planet is polluted.

This is a two-year programme that is offered over four semesters. In the first year, students take taught courses using a combination of face-to-face and virtual lectures. In the second year, students undertake a research project focusing on the One Health triad (human health, animal health and ecosystem health).

1.1.6 Master of Science in Innovation

This is a two-year programme that is offered over four semesters. In the first year, students take taught courses using a combination of face-to-face and virtual lectures. The lectures are on block release and students are periodically taught and also given time to work on assignments at home. In the second year, students undertake a research project focusing on product or process innovation and submit a Dissertation.

1.1.7 Master of Science in Entrepreneurship

This is a two-year programme aimed at equipping students with knowledge, skills, and attitudes needed to survive and thrive in business to propel Malawi and the region to greater socio-economic heights. The programme is offered over four semesters. During first year, students take taught courses using a combination of face-to-face and virtual lectures. The lectures are on block release and students are periodically taught and also given time to work on assignments at home. In the second year, students undertake a research project focusing on entrepreneurship and submit a Dissertation.

1.1.8 Master of Business Leadership

This postgraduate programme targets applicants that are working in highly dynamic modern organizations that require dynamic and robust leaders with strong skills in business leadership. Graduates will acquire management skills, and the ability to flourish in a dynamic global environment with global teams that are vibrant and challenging. The graduates will further be able to strategically assess and analyze their business and manage new business challenges ahead of time to enable growth and profitability of their businesses. This is a two-year programme that will be offered over four semesters. During first year, students will take taught courses using a combination of face-to-face and virtual lectures. The lectures are on block release and students will periodically be taught and also given time to work on assignments at home. In the second year, students will undertake a research project focusing on business leadership and submit a Dissertation.

1.1.9 Master of Science in Strategic Family Business

Family-owned businesses make substantial contributions to the social and economic welfare and development of societies, countries, and regions of the world. They are, therefore, an important source of wealth creation and employment. The major problem with family businesses is succession and transfer of leadership and ownership from one generation to the other among the family members. Only a few family businesses successfully manage the succession to the second or third generations of family members amidst periods of risks and set-backs. This program is specifically and carefully designed

to ensure success and full contribution of family businesses to the socio-economic development of Malawi and beyond.

This is a two-year programme that will be offered over four semesters. During first year, students will take taught courses using a combination of face-to-face and virtual lectures. The lectures are on block release and students will periodically be taught and also given time to work on assignments at home. In the second year, students will undertake a research project focusing on family businesses and submit a Dissertation.

1.1.10 Master of Science in Mathematical Modelling

This is a two-year programme that serves as a follow-up to Bachelor of Science in the fields of Mathematics, Physics, Statistics, Economics, Engineering, Biological Sciences, Chemistry, Technical Education with honours or minors in Mathematics. This MSc in Mathematical Modelling has focused on studies in the scientific fields. Students on this program are expected to learn how to apply mathematics or its principles to solve practical problems within their field of study, for instance, finance, insurance, business, ecology, environment, computer science, health sciences and others. During first year, students will take taught courses using a combination of face-to-face and virtual lectures. The lectures are on block release and students will periodically be taught and also given time to work on assignments at home. In the second year, students will undertake a research project that will involve mathematical modelling in any scientific field of their interest and submit a Dissertation.

1.1.11 Master of Engineering in Applied Chemical Engineering

The programme aims at addressing a shortfall in human resource needs in Chemical Engineering for industrial development in Malawi and beyond. It will be offered on block release using blended learning methods. The face-to-face approach for taught courses in the first year will be limited to two weeks per semester, whilst the rest of the contacts with students will be virtual. The programme's duration is two years and students in the second year will conduct a research project in Chemical Engineering related area and submit a Dissertation.

1.1.12 Master of Science in Computer Science (by Research)

Computing is a key enabler of any modern knowledge-based economy as it opens new channels and means of acquiring knowledge and information exchange in various sectors of an economy. In Malawi, there is a need for skilled human resource that can create advanced computing artefacts for propelling a knowledge-based economy. This programme aims at producing locally, computer scientists that have mastered advanced practical principles of computer science and its sub-branches to positively contribute to the creation of tools for a vibrant knowledge-based economy in Malawi and beyond. This two-year programme is by research, but students will take two pre-requisite courses and participate in seminars as they work on their dissertations. The students will conduct a research project in Computer Science and submit a Dissertation.

1.1.13 Master of Science in Data Science

As the Fourth Industrial Revolution unfolds, it has become commonplace to refer to data as the “new oil” of the global economy. Data scientists are the talent that provides the ability to extract, refine and deploy this new source of value for decision making in the global economy and even within the context of Malawi. The MSc in Data Science programme is designed to help the graduate student master advanced practical principles of data science and its related courses, including machine learning, data mining, business intelligence, big data analytics, data management and their applications. It is a two-year taught programme. During first year, students will take coursework using a combination of face-to-face and virtual lectures. In second year, students will conduct a research project in Data Science and submit a Dissertation.

1.1.14 Master of Science in Information Technology (by Research)

Information Technology (IT) concerns the usage of computer technologies to solve problems in various contexts including business settings. The aim of this programme is to produce high calibre graduates equipped with advanced knowledge and practical skills in information technology which will enable them to resourcefully and cost-effectively apply information technology tools, at their disposal, in solving real-life problems in Malawi and beyond. This two-year programme is by research. Students will, however, take two pre-requisite courses and will also be required to participate in seminars as they work on their dissertations. The dissertation will be on a research topic in IT.

1.1.15 Master of Engineering in Biomedical Engineering

This is a two-year postgraduate engineering programme that is offered over four semesters. In the first year, students will learn different modules and carry out one research project using a combination of face-to-face and virtual lectures. The lectures will be offered on a full-time basis during which the candidates will periodically be taught and allocated time to work on assignments after classes. During the second year, candidates will carry out a medical research project and attend biomedical engineering seminars. It targets those with **first** degrees from accredited institutions in areas such as Biomedical Engineering, Electrical Engineering, Mechanical Engineering, Medicine, Biomedical Sciences or Life Sciences and any other BSc or BEng. qualifications in relevant engineering, medicine, and life science fields.

1.1.16 Master of Science in Biodiversity Informatics

This is a two-year programme that is offered over four semesters using a combination of face-to-face and online lectures. Biodiversity Informatics is an emerging field that looks at applying modern computer techniques to ecology, biogeography, and species/taxonomy information. The programme aims to equip students with skills in mobilizing, managing, publishing and using biodiversity data to inform decision making processes in conservation, agriculture, water resource management, spatial planning and

health. It is offered on a full-time basis, with course work covered in the first year. In the second year, students carry out dedicated research leading to an MSc thesis.

1.2 PhD Programmes

2.2.1 PhD in Applied Mathematics

The Applied Mathematics doctorate programme runs for three (full time) or four years (part time) and is aimed at enabling learners to conduct advanced applied research in any scientific field such as Engineering, Medicine, Physics, Biology, Computer Sciences and others under the supervision of advisors. There is now an increased need for experts to analyze collected data in line with international standards in this new information age. Hence, mathematical and statistical analyses have become an indispensable element for various industries. During first year, students will take taught courses using a combination of face-to-face and virtual lectures. The lectures are on block release and students will periodically be taught and given time to work on assignments at home. From year 2 to 4, students will conduct a research project that will apply Mathematics in any scientific field of their interest and submit a Dissertation.

2.2.2 PhD in Business Leadership

This programme aims at providing professional advanced knowledge and skills to students. The programme emphasizes research on contemporary business leadership issues in Malawi, the region and beyond. It is designed to equip students with better decision-making capabilities on various contemporary challenges facing modern businesses locally and internationally. The programme is for three years (full-time) or five years (part time). During first year, students will take taught courses using a combination of face-to-face and virtual lectures. The lectures are on block release and students will periodically be taught and given time to work on assignments at home. From year 2 to 5, students will conduct a research project in Business Leadership and submit a Dissertation.

2.2.3 PhD in One Health

“One Health” is a public health approach focusing on the paradigm shift of the interrelationships between veterinary and human health, and environmental health, and brings the understanding of these three disciplines to a level where the assessment of the implications of any change in sub-system or a policy on the entire system. One Health is closely linked to the ecological health with the underlying premise that the health and well-being of humans and animals cannot be sustained if the planet is polluted. This is a three-year programme that is offered through course work for the first six months and thereafter intensive research. Students undertake a research project focusing on the increasing interactions between humans and animals within the environment and numerous factors exacerbating ecological (environmental) health and, the emergence, re-emergence and spread of infectious diseases and other growing global threats to human health and socioeconomic wellbeing which necessitate a

multisectoral and multidisciplinary collaboration and coordination on prevention through environmental management.

2.2.4 PhD in Maternal and Neonatal Health

In Malawi, like in most countries in the region, most maternal deaths are mainly attributed to direct obstetric causes such as haemorrhage, sepsis, complications of abortion and hypertensive disorders. However, the fight against high Maternal Mortality Rates (MMRs) requires a multidisciplinary approach. This PhD programme is aimed at employing research in various thematic areas to investigate the various contributing factors towards maternal mortality. Similarly, neonatal mortality, which is estimated at close to 30 deaths per 1,000 births, is still higher compared to the global ratio of 18 deaths per 1,000. There is, therefore, still need for multidisciplinary research to investigate the various factors that contribute to this high ratio in Malawi such as asphyxia, premature birth and infections. This PhD programme will provide a platform for such studies. This is a three-year full time PhD programme which will build upon candidates' prior knowledge and experience in specific health-related thematic areas. As such, the programme will consider applications from prospective candidates who are already trained to a Master's level in any of the following thematic areas: Medical Microbiology, Immunology, Ultrasound and Radiography, Environmental Health, Pathology, Nursing and/or Midwifery, Obstetrics and Gynaecology or Family Medicine.

Admission Requirements

- 1, For applicants to the Master's degree programmes, a good Bachelor's degree from a recognized and accredited university in the relevant field of the programme applied for is required. As for applicants to the PhD programmes, a good Master's degree from a recognized and accredited university in the relevant fields of the program applied for is required.
- 2, At least two years of work experience in a relevant field
- 3, A letter of undertaking to pay the required fees from the applicants or their parent/guardian or sponsor with evidence of reliable source of income.

Fees

The tuition fee for all postgraduate programs at MUST is set at US\$5,000 or the equivalent in Malawi Kwacha per academic year. This fee can be paid in instalments over each semester. However, for the One Health programmes, qualifying candidates will be eligible for 100% limited scholarships. As for the other programmes, qualifying candidates can access limited partial scholarships of up to 30% for both Masters and PhD programmes.

Enrollment

To be considered for enrolment, applicants must submit the following mandatory documents:

- 1, A completed postgraduate application form available at MUST Registry or downloaded on MUST website (www.must.ac.mw) under Media Centre, then Downloads or send a request email to: admissions@must.ac.mw
- 2, A motivation essay of 500 words for MSc applicants and a page long concept for PhD applicants structured with title, background, problem statement, objectives, methods and impact.
- 3, Certified copies of academic certificates
- 4, Sealed academic transcripts
- 5, Proof of funding, for example sponsorship letter or copies of appropriate financial records for self-sponsored students
- 6, Two reference letters (one academic and one professional for Masters programme applicants) and three reference letters (two academic and one professional) for PhD applicants.
- 7, An original bank deposit slip of a non-refundable application fee of K10,000 for Malawians and US\$50 for all non-Malawians. Payment of application fees should be made into the bank account provided below;

Bank Name: National Bank

Branch: Limbe

Account Name: MUST Collections

Account Type: Current Account

Account Number: 1008811427

OR

Bank Name: FDH Bank

Bank Branch: Limbe

Account Name: MUST Collections

Account Type: Current Account

Account Number: 1070000218137

Partial Scholarships

The allocation of partial scholarships mentioned above will be contingent upon the eligibility assessment conducted by the University. To apply for these scholarships, candidates must submit a mandatory scholarship application letter, providing relevant information and supporting documents as required. The University will evaluate the applications and determine the eligibility of candidates for the partial scholarships.

Deadlines for submission

The deadline for submitting completed applications for all programmes under all categories is July 26, 2024. For any inquiries or further information, please feel free to contact the Registrar via email (registrar@must.ac.mw). To apply, please ensure that you send the completed application forms (a copy of which will be attached together with this advert on our website, www.must.ac.mw, under Announcement) along with

certified copies of your academic qualifications and a deposit slip to the following address:

University Registrar
Malawi University of Science and Technology
P.O. Box 5196, Limbe
MALAWI

Email: admissions@must.ac.mw with a copy to amtewa@must.ac.mw

For MSc in Biodiversity Informatics, applicants should also send a copy to:
biodiversity@must.ac.mw

Opening dates for AMS and MIT PG students

MUST is advising postgraduate students that were last time selected into programmes under Academy of Medical Sciences (AMS) and Malawi Institute of Technology (MIT) and were yet to start their studies that opening dates have now been set. All students are expected at MUST campus on Sunday, July 21, 2024 for an orientation session slated for Monday, July 22. After this orientation session, the students will start their classes or continue with course specific orientation.

The targeted students for this communication are those who were selected for Masters degree programmes in the following fields: Medical Microbiology; Mathematical Modelling; Diagnostic Ultrasound; Infection and Immunity; Innovation; Entrepreneurship; Business Leadership; Strategic Family Business; Applied Chemical Engineering; Computer Science; Data Science; and Information Technology plus those in PhDs in Business Leadership, and Innovation and Development.

PG students with enquiries on this communication, should contact the PG Coordinator, **Dr Andrew Mtewa** through email on amtewa@must.ac.mw