**MBARARA UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

INTEGRATED
ANNUAL REPORT
2024

CONTENTS

ACRONYMS/ABBREVIATIONS

AR	Academic Registrar
BAF	Bachelor of Accounting and Finance
BBA	Bachelor of Business Administration
BCE	Bachelor of Computer Engineering
BCS	Bachelor of Computer Science
BINP	Bwindi Impenetrable National Park
BIT	Bachelor of Information Technology
BME	Bachelor of Biomedical Engineering
BNC	Bachelor of Nursing Completion
BNS	Bachelor of Nursing Science
BPSM	Bachelor of Procurement and Supply chain Management
BRAM	Bachelor of Records and Archive Management
BSE	Bachelor of Science Education
CITT	Centre for Innovations and Technology Transfer
DoS	Dean of Students
DRGT	Directorate of Research and Graduate Training
DVC AA	Deputy Vice Chancellor – Academic Affairs
DVC F&A	Deputy Vice Chancellor – Finance and Administration
EEE	Electrical and Electronics Engineering
F	Female
FAST	Faculty of Applied Science and Technology
FCI	Faculty of Computing and Informatics
FGD	Focus Group Discussion
FIS	Faculty of Interdisciplinary Studies
FoBMS	Faculty of Business and Management Sciences
FoM	Faculty of Medicine
FoS	Faculty of Science
HCU	Healthy Child Uganda
HIV	Human Immunodeficiency Virus
HR	Human Resource
ITFC	Institute of Tropical Forest Conservation
M	Male
MADS	Masters in Development Studies
MLGP	Masters in Local Governance and Planning
MBI	Master of Business Informatics
MUGO	Mbarara University Grants Office
MISc	Masters in Information Science
MMED	Master of Medicine
MNCHI	Maternal Newborn and Child Health Institute
MoES	Ministry of Education and Sports
MoFPED	Ministry of Finance, Planning and Economic Development
MoH	Ministry of Health
MoSTI	Ministry of Science, Technology and Innovation
MPCP	Master of Pharmacy in Clinical Pharmacy
MPP	MUST Peer Project
MPH	Master of Public Health
MRRH	Mbarara Regional Referral Hospital
MSc	Master of Science
MSIS	Masters of Science in Information Systems
MT	Mama Toto
MUST	Mbarara University of Science and Technology
NCHE	National Council for Higher Education
NDP	National Development Plan
NIH	National Health Institute
NITA	National Information Technology Authority

NSF	National Science Foundation
OB/GYN	Obstetrics and Gynaecology
ODEL	Open Distance and Electronic Learning
PBB	Programme Based Budgeting
PDU	Procurement and Disposal Unit
PEEM	Petroleum, Energy and Environmental Management
PhD	Doctor of Philosophy
PLWH	People Living With HIV
QAM	Quality Assurance Mechanisms
RDC	Resident District Commissioner
REC	Research Ethics Committee
RENU	Research and Education Network of Uganda
SLT	Science Laboratory Technology
STD	Sexually Transmitted Diseases
STI	Sexually Transmitted Infections
STP	Student-community Twinning Project
SW	Students Welfare
TASO	The Aids Support Organisation
TMC	Top Management Committee
UGX	Uganda Shillings
UNCST	Uganda National Council for Science and Technology
UOTIA	Universities and Other Tertiary Institutions Act
VC	Vice Chancellor
VCT	Voluntary Counseling and Testing
VHT	Village Health Team
VLIR-UOS	Vlaamse Interuniversitaire Raad-Universitaire Ontwikkelingssamenwerking (Flemish Interuniversities Council – University Development Cooperation)
VUB	Vrije Universitet Brussels

MESSAGE FROM
THE UNIVERSITY COUNCIL CHAIRPERSON

DR. WARREN NAAMARA,
CHAIPERSON
UNIVERSITY COUNCIL

> *I extend my heartfelt congratulations and gratitude to all members of the MUST community for their hard work and unwavering focus on excellence.*

On behalf of the Mbarara University of Science and Technology (MUST) Council, I am honored to present the 2024 Annual Report. This report highlights our collective achievements over the past year, as well as the strides made in teaching, research, innovation, and community engagement.

This is in accordance to the Universities and Other Tertiary Institutions Act (UOTIA) 2001 (as amended), Section 67 that mandates the University Council to prepare and submit an annual report to the Minister of Education and Sports (MoES) detailing the University's activities and the extent to which its objectives have been achieved.

I appreciate the dedication and commitment of the University Management, Staff, and Students have enabled us to make significant progress. I extend my heartfelt congratulations and gratitude to all members of the MUST community for their hard work and unwavering focus on excellence.

Together, we continue to transform lives through education, innovation, and impactful community service.

Sincerely,

Succeed We MUST.

MESSAGE FROM
THE VICE CHANCELLOR

PROFESSOR PAULINE BYAKIKA KIBWIKA
VICE CHANCELLOR

"

The university has grown significantly, now offering 85 accredited undergraduate and postgraduate programs to 6225 students.

On behalf of the Management team, it is our privilege to present the Mbarara University of Science and Technology (MUST) Annual Report for the year ending December 31, 2024. This year marked a momentous milestone as MUST attained 35 years of existence on October 28, 2024. Over the years, the university has grown significantly, now offering 85 accredited undergraduate and postgraduate programs to 6225 students supported by 628 dedicated staff, alongside enhanced infrastructure and educational facilities.

We extend our sincere appreciation to all staff and students for their commitment and resilience in accomplishing the goals of this year. We also acknowledge and thank the Government of Uganda for its continued financial support, enabling MUST to uphold its mandate and achieve impactful results. The core roles of the university remain at the heart of our efforts; Teaching and Learning, Leadership, Research, Innovation, and Community Engagement. In Teaching and Learning, we upheld high academic standards, providing transformative education for our students. In Research, MUST expanded its grants portfolio, advancing knowledge generation and problem-solving capabilities. Our innovations continued to create tangible impacts, reinforcing our reputation as a hub of creativity and practical solutions. Through active Community Engagement, we strengthened our connection with the communities we serve, ensuring our contributions remain relevant and impactful.

Notably, many of our staff achieved academic milestones, with several completing PhDs and Master's degrees this year. This year was unique with two graduation ceremonies. The 30th MUST graduation held in February with 1470 graduands and the 31st in October 2024 with 1615 graduands. These achievements were supported by key initiatives, including the AfDB-funded HEST project, State House Scholarships, the Government Loan Scheme, and contributions from partners such as the MasterCard Foundation, PHARMBIOTRAC (World Bank), and SIDA.

The achievements highlighted in this Integrated Annual Report reflect the hard work, dedication, and collaborative spirit of the entire MUST community. As we look forward, let us continue to raise the bar and seize opportunities to advance our mission of excellence in education, research, and innovation. Sincerely,

Succeed We MUST.

MESSAGE FROM THE DEPUTY VICE CHANCELLOR– ACADEMIC AFFAIRS

PROF. NIXON KAMUKAMA,
DEPUTY VICE CHANCELLOR (ACADEMIC AFFAIRS)

The Office of the Deputy Vice Chancellor-Academic Affairs (DVC-AA), supported by the Office of the Academic Registrar (AR), plays a central role in shaping the academic direction of Mbarara University of Science and Technology (MUST). This office oversees a broad spectrum of responsibilities, including leadership in academic program policy, quality assurance, and support for the university's research mission at both undergraduate and graduate levels.

In 2024, the DVC-AA Office continued to drive academic and long-term institutional planning, providing oversight of faculty and staff to advance knowledge creation and application. To address society's needs, the university leveraged upon its core mandate to skill youth through innovation and entrepreneurship, focusing on digital transformation and reducing technology divide, environmental sustainability and addressing health care challenges.

The achievements highlighted in this report are a testament to the dedication and concerted effort of the academic units. The Office remains committed to delivering high-quality services and working closely with other functional units to achieve the university's strategic goals.

Succeed We MUST.

"

The university leveraged upon its core mandate to skill youth through innovation and entrepreneurship, focusing on digital transformation and reducing technology divide, environmental sustainability and addressing health care challenges.

ACKNOWLEDGEMENTS – FROM THE
DEPUTY VICE CHANCELLOR (F&A)

> **"**
>
> *The MUST Annual Performance Report of 2024 is evidence to the collaborative spirit and effort of the entire university community.*

ASSOC. PROF. CHARLES TUSHABOMWE-KAZOOBA
DEPUTY VICE CHANCELLOR (F&A)

The MUST Annual Performance Report of 2024 is evidence to the collaborative spirit and effort of the entire university community. This accomplishment reflects the seamless synergy between academic and administrative units, showcasing the dedication and teamwork that define Mbarara University of Science and Technology. Special recognition goes to Ms. Winfred Aliguma (Senior Administrative Secretary) in my office and Ms. Sheila Niinye (Senior Communications Officer in charge of International Relations) who freely offered their expertise to review and design this report. We also extend our gratitude to Ms. Angella Nakato (Senior Communications Officer in charge of Public Relations) for providing us with some of the photographic materials used.

We are deeply grateful for the visionary leadership of the Chancellor, Prof. Charles L. M. Olweny; the Chairperson of the University Council, Dr. Warren Naamara; the Vice Chancellor, Prof. Pauline Byakika Kibwika; the Deputy Vice Chancellor (Academic Affairs), Prof. Nixon Kamukama; the University Secretary, Mr. Vincent Kwatampora Kansiime; the Dean of Students, Mr. Emmanuel Kyagaba; and the Academic Registrar, Dr. Martha Kyoshaba Twinamasiko. Their unwavering commitment continues to steer MUST toward excellence.

Finally, we acknowledge the countless individuals working tirelessly behind the scenes to uplift and sustain the university's success. To all of you who contribute in visible and invisible ways, we say bravo and thank you!

Succeed We MUST.

1. MUST AT A GLANCE

1.1 Faculties, Institutes and Units

Faculty of **Computing and Informatics**

Faculty of **Applied Sciences and Technology**

Faculty of **Interdisciplinary Studies**

Institute of **Tropical Forest and Conservation**

Faculty of **Medicine**

Centre for **Information and Technology Transfer (CITT)**

Faculty of **Science**

Maternal Newborn and **Child health institute**

Faculty of **Business and Management Science**

Quick Facts About MUST

6225
Enrolled Students (AY 2023/24)

32
Undergraduate Programmes

53
Graduate Programmes

213,457+
Alumni Community

#2 Public University in Uganda

1.1 Legal Framework of the University

Mbarara University of Science and Technology (MUST) is a public university located in southwestern Uganda. It was established on October 28, 1989, by the MUST Statute 1989 resulting from the government's realization that higher education was a critical asset for nation building and in particular that Science and Technology was the most realistic driver to lead this initiative. The Statute was repealed and replaced by the Universities and Other Tertiary Institutions Act 2001 (as amended).

The government appreciated the crucial role that higher education institutions especially universities play in national, social and economic development and the promotion of national consciousness through their traditional functions of providing high-level manpower, promoting research, collecting and disseminating knowledge and information and serving as centres of excellence. Since her establishment, the university has come up with many community innovations, which have contributed to its development and that of the country. At the very beginning, a community-based curriculum was adopted to enable the students to better understand the health problems of the rural and peri-urban areas where 70% of Ugandans live. During training, students are exposed and introduced to rural and peri-urban community settings, to appreciate the problems and conditions that the majority of the population faces. Thus, the university programmes are designed to avoid the elitist education and the ivory tower mentality.

The university has grown from a single Medical and Health Sciences Faculty University with an undergraduate student population of 43, to now 6 Faculties and 2 institutes with a total enrolment of 5,882 (33.4% Female) undergraduates and postgraduate students. The university staff has also increased from the original six members to 635 as of December 2024. The university operates two campuses: Kihumuro main campus located 7 km on the Mbarara – Bushenyi highway and the Mbarara city campus.

1.2 Vision, Mission and Mandate

Vision
A centre of Academic and Professional Excellence in Science and Technology.

Mission
To provide quality and relevant education at national and international levels with particular emphasis on Science and Technology and its application to community development.

Mandate
To promote quality higher education for national integration and development through teaching of science and technology for promotion of the political, economic and social development of Uganda, the needs and aspirations of the Republic of Uganda.

1.3 Core Functions

(i) Teaching
(ii) Learning and Leadership
(iii) Research
(iv) Innovation
(v) Outreach and Community Engagement

1.4 Support Areas of Focus

(i) Governance and Management
(ii) Financial Resource Mobilisation and Management
(iii) Teaching, Innovations and Research Infrastructure
(iv) ICT infrastructure and Support Services
(v) Student Support Services

1.6 Objectives and Functions

(i) To provide instructions to all those admitted to the University and make provision for the advancement, transmission and preservation of knowledge to stimulate intellectual life in Uganda.

(ii) To preserve and foster the right of the University to determine the qualification of who may teach, what may be taught, how it may be taught and the requirements to be fulfilled in order to be admitted to study therein.

(iii) To impart University education within Uganda with particular emphasis on science and technology and their application to rural development and for this purpose to work with other appropriate bodies in the planned development of higher education, in particular to examine and make proposals to the government for new faculties, new departments, and new degree courses/subjects of study.

(iv) To conduct examinations for and to grant degrees, diplomas, certificates and other awards of the University and revocations of such degrees, diplomas, certificates and other awards in a manner provided for by the statutes.

1.7. MUST Strategic Objectives 2020/2021- 2024/2025

(i) To increase equitable access to quality education in Science and Technology
(ii) To enhance the quality and quantity of Research, Innovation output and Technology Transfer
(iii) To consolidate and enhance university outreach and community engagement
(iv) To strengthen ICT Infrastructure and support services
(v) To strengthen efficiency and effectiveness of governance & management systems and processes
(vi) To holistically boost the academic and social development of staff and students

1.8 Registered Office and Principal Place of Business

Location
Kihumuro campus
Block 37 Kashari – Plot 21
Mbarara – Bushenyi Road
P.O. Box 1410 Mbarara, Uganda
Tel: +256-485421373

City campus
Plots 8– 18 Kabale Road

E-mail:
vc@must.ac.ug
dvc.aa@must.ac.ug
dvc.fa@must.ac.ug
ar@must.ac.ug
us@must.ac.ug
pro@must.ac.ug
iro@must.ac.ug

Website:
www.must.ac.ug

X:
MbararaUST

Youtube:
Mbarara University of Science and Technology

LinkedIn:
MbararaUST

2. GOVERNANCE STRUCTURE

2.1 University Council

The University Council is the supreme organ of the University, responsible for the overall administration. Council ensures due implementation of the objectives and functions of the University guided by the Council Charter. It was established on October 28th 1989 by the Mbarara University of Science and Technology Statute 1989. The Statute was repealed and replaced by the Universities and Other Tertiary Institutions Act (UOTIA), 2001 (as amended).

The Council functions through six committees, namely:

(i) Finance, Planning and Development
(ii) Estates and Works
(iii) Appointments Board
(iv) Students' Welfare and Disciplinary
(v) Audit and Risk Management
(i) Legal and Rules

Table 1: University Council Members, Designations and Gender

S/N	Names	Designation	Gender
1	Dr. Warren Naamara	Chairperson	M
2	Ms. Sarah Nyachwo Mwaka	Vice Chairperson / Chair Legal, Rules and Previleges Committee	F
3	Dr. Medard Bitekyerezo	Member	M
4	Dr. Stevens Kisaka	Chair Appointments Board	M
5	Ms. Clare Nduhuura	Member	F
6	Mr. Muzamil Mukwatampola	Chair Welfare and Displinary Committee	M
7	Dr. Henry Mwebesa	Member	M
8	Mr. Hannington Ashaba	Chair Audit & Risk Management Committee	M
9	Mr. Robert Mugabe Kakyebezi	Member	M
10	Mr. Ambrose Murangira	Member	M
11	Dr. Joseph Ngonzi	Member	M
12	Prof. Grace Kagoro Rugunda	Member	F
13	Ms. Stella Dusabe Byarugaba	Member	F
14	Assoc. Prof. Robert Bitariho	Member	M
15	Dr. Pius Ariho	Member	M
16	Mr. Thomas Dennis Lukaaya	Member	M
17	Mr. Charles Kakuru	Member	M
18	Ms. Agatha Achom Mutenyo	Chair Finance, Planning and Development Committee	F
19	Eng. Denis Ssekandi Galabuzi	Chair Estates & Works Committee	M
20	Ms. Daisy Arinda Kankiriho	Guild president	F
21	Mr. Promise Amutuhaire	Students' Representative	M
22	Prof. Pauline Byakika-Kibwika	Vice Chancellor	F
23	Prof. Nixon Kamukama	Deputy Vice Chancellor (AA)	M
24	Assoc. Prof. Charles Tushabomwe-Kazooba	Deputy Vice Chancellor (F&A)	M
25	Mr. Geoffrey Mutebi –	Ex-Official	M
26	Mr. Vincent Kwatampora Kansiime	University Secretary / Secretariat	M
27	Ms. Irene Ahabwe	Deputy University Secretary / Secretariat	F
28	Mr. Timothy Mugumya Ndiana	Senior Legal Officer	M

18 Male (64.3%); 10 Female (35.7%)

2.2 University Senate

The university senate is responsible for the organization, control and direction of the academic matters of the university and as such in charge of the teaching, research and their assessment in the university.

Table 2: University Senate

S/N	Names	Designation	Gender
1	Prof. Pauline Byakika-Kibwika	Vice Chancellor	F
2	Prof. Nixon Kamukama	DVC (AA)	M
3	Assoc. Prof. Charles Tushabomwe-Kazooba	DVC (F&A)	M
4	Dr. Martha KyoshabaTwinamasiko	Academic Registrar	F
5	Mr. Felix Magyezi Amanya	University Bursar	M
6	Dr. Dennis Babaasa	Director, ITFC	M
7	Dr. Celestine Barigye	Director, MRRH	M
8	Assoc. Prof. Joseph Ngonzi	Dean, FOM	M
9	Dr. Eunice Olet Apio Alele	Dean, FOS	F
10	Dr. Wendo Mlahagwa	Dean, FIS	F
11	Dr. Evarist Nabaasa	Dean, FCI	M
12	Dr. Frederick Nsambu Kijjambu	Dean, FoBMS	M
13	Dr. Johnes Obungoloch	Dean, FAST	M
14	Professor Roberts K Muriisa	Member	M
15	Professor Grace Kagoro	Member	F
16	Assoc. Professor Joel Bazira	Member	M
17	Dr. Rose Nassali	Principal, Mulago	F
18	Dr. M. Mulabiza	Principal, School of Nursing & MW	M
19	Mr. Vincent Kwatampora Kansiime	University Secretary	M
20	Mr. Geoffrey Mutebi	Chief Quality Assurance Officer	M
21	Ms. Daisy Arinda Kankiriho	Guild president	F
22	Ms. Promise Amutuhaire	Students' Representative	F

14 Males (63.63%); 8 Females (36.36%)

2.3 Top Management

The University Top Management is headed by the Vice Chancellor and is responsible for:
(i) Advising the University Council and Senate on academic, administrative and financial affairs of the University
(ii) Initiating policy proposals for consideration by Senate and its committees and or Council and its committees
(iii) Generating Senate and Council business
(iv) Implementing Senate and Council Decisions

Table 3: University Top Management Committee

S/N	Name	Title	Gender
1.	Prof. Pauline Byakika-Kibwika	Vice Chancellor	F
2.	Professor Nixon Kamukama	Deputy Vice Chancellor (AA)	M
3.	Assoc. Prof. Charles Tushabomwe - Kazooba	Deputy Vice Chancellor (F&A)	M
4.	Mr. Prinari Behangana	Director Human Resource	M
5.	Mr. Geoffrey Mutebi	Internal Auditor	M

6.	Mr. Felix Magyezi Amanya	University Bursar	M
7.	Mr. Aggrey Amanyabyoona	Principal Procurement Officer	M
8.	Eng. Patrick Mujunansi	University Engineer	M
9.	Ms. Robinah Nakakeeto	Deputy Secretary (Planning)	F
10.	Mr. Emmanuel Kyagaba	Dean of Students	M
11.	Dr. Martha Kyoshaba Twinamasiko	Academic Registrar	F
12.	Assoc. Prof. Julius Lejju	Chairperson, Deans' Committee	M
13.	Mr. Timothy Ndiana Mugumya	Legal Officer	M
14.	Dr. Vincent Batwala	Director, DRGT	M
15.	Dr. Stalone Robert Buwule	Librarian	M
16.	Dr. Celestine Barigye	Director- MRRH	M
17.	Mr. Vincent Kwatampora	University Secretary	M

14 Males (82.35%); 3 Females (17.65%)

Table 4: Deans and Directors

SN	Name	Faculty/Institute	Gender
1	Assoc. Prof. Joseph Ngonzi	Dean, Faculty of Medicine	M
2	Dr. Eunice Olet Apio Alele	Dean, Faculty of Science	F
3	Dr. Frederick Nsambu Kijjambu	Dean, Faculty of Business and Management Science	M
4	Dr. Wendo Mlahagwa Olema	Dean, Faculty of Interdisciplinary Studies	F
5	Dr. Evarist Nabaasa	Dean, Faculty of Computing and Informatics	M
6	Dr. Johnes Obungoloch	Dean, Faculty of Applied Science and Technology	M
7	Mr. Emmanuel Kyagaba	Dean of Students	M
8	Prof. Jerome Kabakyenga	Director, Maternal Newborn and Child Health Institute	M
9	Dr. Dennis Babaasa	Director, Institute of Tropical Forest Conservation (ITFC)	M
10	Assoc Prof. Vincent Batwala	Director, Directorate of Research and Graduate Training	M
11	Dr. Medard Twinamatsiko	Director Centre of Innovation and Technology Transfer	M

9 Males (81.8%); 2 Females (18.2%)

3. CENTRAL ADMINISTRATION

Vice Chancellor's Office

Introduction

The Vice Chancellor is the chief executive and academic leader of MUST. She is entrusted with overall responsibility for the academic, administrative, and financial affairs of the University. On 24th October 2024, Prof. Celestino Obua handed over leadership as Vice Chancellor to Prof. Pauline Byakika Kibwika who is the 1st female VC of MUST. The Vice Chancellor is supported by two Deputy Vice Chancellors. The First Deputy Vice Chancellor assists in the performance of functions related to academic affairs and takes charge of academic leadership. The Second Deputy Vice Chancellor, on the other hand, provides oversight of finance and administration, guides institutional planning and development, and ensures smooth management of resources. Both deputies also perform additional functions as delegated by the Vice Chancellor or assigned by the University Council, thereby ensuring that the University's leadership operates efficiently and collaboratively

3.1 Communications Office Vision Statement

The vision of the Mbarara University of Science and Technology Communications Office is to be a leading force in shaping the university's narrative and enhancing its global presence. We aspire to:

Be a Catalyst for Change: Inspire and empower the university community through effective communication and engagement strategies.

Elevate the University's Profile: Position Mbarara University of Science and Technology as a premier institution recognized for its contributions to education, research, and societal development.

Foster a Culture of Collaboration: Create a vibrant network of stakeholders who are actively engaged in promoting the university's mission and values on a global scale.

3.1.2 Mission Statement

The Communications Office of Mbarara University of Science and Technology is committed to fostering effective communication and building strong relationships with local and international communities. Our mission is to:

Enhance Visibility: Promote the university's achievements, research, and initiatives to raise awareness and appreciation of its contributions to society.

Facilitate Engagement: Cultivate meaningful connections with stakeholders, including students, faculty, alumni, and partners, to create a collaborative and inclusive environment.

Support Transparency: Ensure timely and accurate dissemination of information, fostering trust and credibility within the university and the broader community.

Encourage Global Collaboration: Actively seek partnerships and collaborations that advance knowledge and address global challenges, positioning the university as a leader in higher education. The engagements focused on staff and student exchange, research, academic and cultural exchange.

Through these efforts, the office aims to empower the university community and elevate Mbarara University of Science and Technology on the global stage.

3.2 Communications Office (Public Relations)

3.2.1 Introduction

The Public Relations Office at Mbarara University of Science and Technology (MUST) plays a crucial role in shaping the university's image, facilitating communication, and promoting its activities and achievements. This overview highlights the key activities undertaken by the office over the past year and its impact on the university community and beyond.

3.2.2 Key Activities

3.2.2.1 Media Relations

Established and maintained relationships with local and national media outlets Issued press releases on significant events, research breakthroughs, and university initiatives. Organized press conferences to enhance visibility and engagement with the media.

3.2.2.2 Event Management

Coordinated various university events, including graduation ceremonies, Academic Week (Mentors' workshop. PhD symposium, Annual Research Dissemination Conferences) , and public lectures, career fair, Installation of the 3rd Vice Chancellor event, Medical Campus, Corporate social responsibility of the university, and the Hackathons. Promoted events through various channels, resulting in increased attendance and participation. Collaborated with different departments to ensure successful event execution.

3.2.2.3 Social Media Engagement

Developed and implemented a comprehensive social media strategy. Increased the university's presence on platforms such as Twitter, and Instagram. LinkedIn. Engaged with students, alumni, and the public, fostering a sense of community and pride.

3.2.2.4 Internal Communication
Facilitated communication between university administration and staff/students through newsletters and bulletins. Working with computing services we introduced a News portal. Organized workshops, seminars and team building activities to inform staff about university policies and initiatives with a purpose of enhancing transparency and trust within the university community.

3.2.2.5 Brand Development
Worked on enhancing the university's brand identity through consistent messaging and visual representation. Collaborated with graphic designers to create promotional materials that align with the university's mission. High resolution photos uploaded and revamped the website.

Impact over the year: Increased Visibility: The proactive media relations strategy led to a 30% increase in positive media coverage, enhancing the university's reputation both locally and nationally.
Community Engagement: Events organized by the Public Relations Office saw a 40% increase in attendance, fostering stronger ties between the university and the community. Social Media Growth: The university's social media following grew by 50%, allowing for greater engagement and interaction with current and prospective students.

The Public Relations Office at Mbarara University of Science and Technology has made significant strides in enhancing the university's image, fostering community engagement, and ensuring effective communication. The impact of these activities is evident in the increased visibility, improved internal morale, and strengthened relationships with stakeholders. Moving forward, the office aims to build on these successes and continue to promote the university's mission and values.

3.2.3 Key Achievements
Below are highlights of events undertaken.

Event	Preparations
30th and 31st Graduation of the University	Training the band, attended PhD and Dean's rehearsals, countdown publicity, train the mace bearer, branded the arm rests, briefing of the very important persons invited, online presence before during and after, Protocol preparations before during and after graduation; publication of stories.
Launching of the Emergency medicine block https://med.must.ac.ug/emergency-medicine-department-launches-a-new-home/	Decoration, venue set up, and moderation https://www.must.ac.ug/the-must-newsletter-vol-34-the-must-mirror/
Faculty of medicine Inaugural professorial lecture (IPL) Nero-surgery services in Uganda https://www.must.ac.ug/event/the-inaugural-professorial-lecture-by-prof-david-kitya/	Was responsible for the set up of the venue, programme designing and moderation
MUST Career fair 2024 (MUST) hosted its inaugural Education Collaborative Career Fair on Wednesday, August 28, 2024, in MUST Kihumuro main campus. This highly interactive event aims to bridge the gap between academia and industry by connecting talented students with potential employers https://www.must.ac.ug/the-inaugural-must-education-collaborative-career-fair/ https://www.must.ac.ug/must-career-fair-2024-a-bridge-to-the-future/	Press release, Contacted facilitators, pre-campaigns on social media, contacted campaigns, preparation meetings, engaged students, moderated the event, contacted service provider for branding, managed protocol of the chief guest.
Installation of the Vice Chancellor https://www.must.ac.ug/event/must-welcomes-new-vice-chancellor-professor-pauline-byakika-kibwika/ https://www.must.ac.ug/downloads/newsletter/special%20edition%20exclusive%20pdf.pdf	Organisation committee member responsible for venue set up, training the students for the skit presented, coordinating the band, moderating the event, publicized the event, wrote a story about the event and special edition about the VC's 100 days plan

Registration Exercise The MUST registration exercise is spearhead by the Academic Registrar and her team as the communications person we supported in different ways	Have people help out with directions, photoshoots, Newsletter with details of registration
Admission Ceremony https://www.youtube.com/watch?v=m9PAzWvTst4	The academic Registrar's Office registered students, the communication office offered support with inquires and photo shoots
Academic week Mentors' workshop, PhD symposium and Annual Research Dissemination Conference (ARDC) Event Overview The series of the academic week began with a Mentors Workshop, designed to provide valuable insights for both mentors and mentees on effective mentoring strategies. This was followed by a PhD Symposium, aimed at guiding PhD students through their academic journey, offering support and resources for their development.	The culmination of these activities was the Annual Research Dissemination Conference, where various stakeholders presented their research findings, fostering collaboration and knowledge sharing within the academic community.
White Coat ceremony https://www.must.ac.ug/musts-6th-white-coat-ceremony-a-rite-of-passage-for-aspiring-medics/	The White Coat Ceremony, marking its 6th iteration, was presided over by Vice Chancellor Professor Pauline Byakika -Kibwika. During this significant event, over 600 medical students took their professional oath, symbolizing their commitment to the medical profession. The ceremony was attended by 12 heads of departments from the medical school, highlighting the importance of this milestone in the students' academic and professional journey.
National universities quiz https://www.must.ac.ug/must-flag-waves-high-at-national-university-quiz/	(MUST) participated in the Universities National Quiz, organized by New Vision and sponsored by Bank of Uganda. Competing against 18 universities, MUST achieved an impressive third place, earning equipment valued at 10 million shillings. This accomplishment highlights the university's dedication to academic excellence and teamwork.

3.2.4 Community Engagement and corporate social responsibility

Description of outreach programs conducted

The Paediatrics cancer run
The run to create awareness of cancer in children attracting over 500 participants from different collaborating organisations; led by Global Health Collaborative (GHC), a MUST –Massachusetts General Hospital partnership, Mbarara Regional Referral Hospital and MUST. Other participants were; Bikers Association Uganda, Lion Club of Mbarara, Centenary Bank, Mary Hill High School, Kashaka Girls School, Ntare School, Pepsi Uganda, Uganda Breweries and Mbarara Preparatory School.
Activities Conducted were; radio talk shows to engage the community through informative discussions, sell of t-shirt to fundraise and spreading awareness through merchandise and promotional video development to highlight the impact of previous runs and encouraged participation and recorded testimonials from individuals sharing their experiences.

Drug Abuse Awareness Among the Youth
The activities conducted were; an awareness run organized by medical students to address drug abuse issues among youth and the chief runner was renowned musician Mutoni Fille who shared her personal testimony about drug abuse. MUST was represented by Assoc. Prof. Charles Tushabomwe-Kazooba.
Collaborating Organizations were Pepsi Uganda, Watoto church, Cruise FM, Universal Medical Laboratories. These initiatives collectively aim to foster community engagement, team building and raising awareness about critical health issues affecting children and youth. CAMTech team held a retreat and the PRO was in charge of team building while the Simulation for life project too held a team building activity and the PRO was the facilitator.

3.2.5 Statistics

Item	Number	Description
Documentary	2	CAMTech at 10 years The INSPIRE project
Events	52	Website in the section of events
Announcements	94	Upcoming events, Death, Special announcements
Stories	134	Every event had a story while other stories were about activities in MUST
Newsletters	8	These were monthly until the month of August when we got the news portal
Special Editions	5	PACO project, Ophthalmology, Graduation Registration, The new Vice Chancellor
Social media Instagram Opened up a linkedin page Youtube channel Facebook was hacked X Twitter	From 0 to 700 12000 11 From 20,000 to 30,000	Engagements Followers Live streaming events, with 149 videos

3.2.6 Digital communication and graphics

	Description	Number
Promotional fliers	These are shared before the event and activities Countdowns	4000 fliers
Banner	These carry information in detail than the fliers these are shared before every event	94 banners
Congratulatory	These congratulate achievers like grant winners, new office bearers,	38 achievers
Public holidays	These include all government public holidays including liberation day; Janan Luwum day, women's day, Heroes day, Martyrs day, Labour day and Independence day	7 fliers
Festive season	Easter Christmas Idd Video	3 60 3 1
Death announcement		2
Infographics		6
Announcement Informative fliers	These communicate to the public what is needed at MUST. They can be called 'Be it known'	6

3.2.7 Communication Plan

(i) Press Engagement at University Events
Prioritise engaging the press at university events by holding press conferences and inviting media representatives. This will enhance visibility and foster positive relationships with the media.

(ii) Branding University Buildings
Aim to brand university buildings, which will contribute to creating a comprehensive campus Google Map. This initiative will not only enhance the aesthetic appeal of our campus but also improve navigation for visitors and prospective students.

(iii) Establish a Souvenir Shop
Plan to set up a souvenir shop selling branded items of the university to all stakeholders. This will promote University spirit and provide an additional revenue stream for the institution.

(iv) Create Memorabilia for the Institution
Developing memorabilia that reflects the university's history and achievements will strengthen our brand identity. These items can be used for fundraising and promotional activities.

(v) Wall of Fame for MUST Luminaries
Create a Wall of Fame to honor distinguished alumni and faculty members who have made significant contributions to their fields. This initiative will celebrate our community's achievements and inspire current students.

(vi) Dedicated Social Media Response Team
Assign a dedicated person to respond to all social media inquiries on the university's official accounts. This role will also involve creating engaging dialogues on the university website, fostering a sense of community and connection.

(vii) Print University IEC Materials
Print Information, Education, and Communication (IEC) materials to distribute to staff, students, and stakeholders. This will include calendars, diaries, notebooks, T-shirts, and other branded items. These materials will serve to promote the university's activities and values while enhancing our visibility. By implementing these strategies, we aim to strengthen our communication efforts and enhance the overall visibility of the university within the community and beyond.

3.3 Communications Office (International Relations)

3.3.1 Introduction

The Communications Office in charge of International Relations operates under the Vice Chancellor's Office. Through dynamic engagement with global academic institutions, international development agencies, and foreign missions, the office continues to elevate the visibility and global footprint of MUST.

In 2024, the International Relations Office made strides in enhancing collaborations with international partners, attracting scholars and students from abroad, and supporting capacity-building initiatives for both staff and students. These efforts have contributed to expanding the university's role in global academia and international development.

3.3.2 Key Areas of Engagement in 2024

S/N	Area of Engagement	Activities done
1	International Exchange and Mobility Programs	Coordinated staff and student exchange initiatives under Erasmus+ and other partnership frameworks, enabling academic and cultural exchange.
2	Orientation and Institutional Support	Provided orientation and integration support to incoming and outgoing students and faculty. Supported university-wide events such as graduation, the Annual Research Dissemination Conference (ARDC), visits by international guests and the dissemination of research and mobility opportunities.
3	Strengthening Internationalisation through Projects	Contributed to UCoBS (ucobs.must.ac.ug) project by promoting internationalisation and development of key languages
4	Visa and Immigration Support	Assisted all international students—both full-time and occasional—with visa renewals, and coordinated the processing of student passes and work permits. The office also supported international students and visitors in registering with the Uganda Medical and Dental Practitioners Council.
5	Strategic Partnerships and Memoranda of Understanding (MoUs	Facilitated the development and renewal of Memorandum of Understanding with 6 partner institutions.
6	Publicity and Global Engagement	Promoted MUST's international image through regular updates on the university's website and social media platforms, and hosting international conferences and integrating global expertise into university operations.

3.3.3 Student statistics

In 2024, MUST received a total of 208 international students. Out of these, 135 were full-time international students in the academic year 2024/2025 and 73 occasional students on short stays ranging from 2 weeks to one year.

3.3.4 Summary of international students received

Full time international students	135
Postgraduate students	93
Undergraduates Students	42
Occasional students	73
One year occasional students from SIU	12
Occasional students from University of Calgary, Ghent University, KU Leuven University of Southampton, Virginia University, University of Heidelberg, University Göttmgen, Medical University of Innsbruck, Technical University of Dreden, HOWEST Hogeschool, Antwerp University, University of Waterloo, McGill University, Carleton University and McMaster University.	61
Full time students + occasional students	208

L-R: Barnabas, Tim and Nassia in one of the facilities under the Department of Physiotherapy; Tim Matthewson presenting in class

3.3.5 Below is a summary of the full-time international students and their respective programs.

The table analyses demographic distribution according to the level of study, type of programme, gender and countries.

	94 MUST Postgraduate Students - 2025				41 MUST Undergraduate Students - 2025	
S/N	Programme	Number of students		S/N	Programme	Number of students
1	MMEd- Pediatrics	2		1	Bachelor of Medical Laboratory Science	15
2	MMEd- Ophthalmology	4		2	Bachelor of Medicine And Bachelor of Surgery	16
3	MMEd- Obstretrics & Gynacology	11		3	Bachelor of Science In Mechanical And Industrial Engineering	1
4	MMEd- Pathology	1		4	Bachelor of Pharmacy	2
5	MMEd- Pediatrics	10		5	Bachelor of Science in Pharmaceutical Sciences	1
6	Clinical Pharmacy	1		6	Bachelor of Information Technology	3
7	Master Public Health	1		7	Bachelor of Nursing Science	1
8	MSc. Anatomy	1		8	Bachelor of Science in Procurement and Supply Chain Management	2
9	MMEd- Anesthesia	1		9	Bachelor of Science in Physiotherapy	1
10	MMEd- Dermatology	4			Total	42
11	MMEd- Ear Nose and Throat	3				
12	MMEd- Emergency Medicine	7			Summary	
13	MMEd- General Surgery	4			Postgraduate students	93
14	MMEd- Internal Medicine	2			Undergraduates Students	42
15	Master of Medical Lab. Sciences	1			Total of full time international students	135
16	MMEd- Psychiatry	2				
17	Master Public Health	2			One year occasional students from SIU	12
18	Msc. Biochemistry	1			2 weeks to 16 weeks	61
19	MSc. Medical Microbiology	1			Full time students + one year occasional students from SIU	208
20	MSc. Physiology	2				
21	MSc. Pharmacology	1				
22	MSc. Physics	2				
23	MSc. Biology (Microbiology And Parasitology)	8				
24	MSc. Biology (Natural Resources Ecology, Management and Conservation)	7				

25	MSc. Chemistry	3				
26	MSc. Information Systems	2				
27	Master of Arts- Planning & Governance	1				
28	Master of Business Administration	1				
29	PhD - Business Administration	1				
30	PhD – Biology	1				
31	PhD – Chemistry	1				
32	PhD- Educational Planning & Administration	2				
33	PhD - Medicine (Nursing)	1				
	Total	**93**				

3.3.6 Gender distribution of the full time international students

	Females	Male
Post graduates	35%	65%
Undergraduates	33%	67%

3.3.7 Countries of origin of full time international students at MUST

S/N	Country of Origin	Postgraduate	Undergraduate	Total
1	Kenya	27	03	30
2	Somalia	21	03	24
3	Tanzania	13	16	29
4	South Sudan	08	03	11
5	DRC	11	01	12
6	Rwanda	05	09	14
7	India	01	02	3
8	Burundi	03		3
9	Sudan	01		1
10	Cameroon	01		1
11	Malawi	01		1
12	Ethiopia	01		1
13	Nigeria		02	2
14	Liberia	00	01	1
15	**Total**	**93**	**42**	**135**

3.3.8 Expanding Horizons through mobilities:
MUST Students Benefit from Erasmus+ Exchange Programs

The International Relations Office continues to build bridges across borders, offering students transformative opportunities through Erasmus+ exchange programs. In partnership with institutions across Europe, these programs enable MUST students to gain international experience, broaden their academic and professional skills, and proudly represent the university on the global stage. These programs provide students with a semester or more abroad, allowing them to study, conduct research, and immerse themselves in diverse cultures - an experience made possible by the dedicated efforts of the International Relations Office. Through these initiatives, MUST remains committed to producing well-rounded graduates ready to excel both locally and globally.

3.3.9 Below are some of the institutions that have hosted MUST students through Erasmus

S/N	Name of Institution	Country	Number of Students	Months spent
1	Hochschule Mainz -University of Applied Sciences	Germany	4	6
2	Vrije Universiteit Brussels	Belgium	1	6
3	Powislanski University	Poland	1	6
4	Hellenic Mediterranean University	Greece	2	
5	Radbound University	Netherlands	1	5
	Total		**09**	

L-R: Tom and Gloria with other students from HMU in Greece; Kato Benefit (first person scorting on the first row) in Mainz Germany

Students from Engineers Without Borders after receiving orientation from MUST

3.3.10 Institutions hosted

The Communications Office in charge of International Relations hosts guests from across the globe, through these engagements; opportunities for the MUST community are exchanged and partnerships are strengthened. Guests are oriented, guided and welcomed in MUST. Below are some of the institutions where guests were hosted from; University of Bristol, North Carolina Chapel University, University of Virginia, North Carolina State University, University of Maryland College Park (U.S.A), US embassy in Uganda, Embassy of the People's Republic of China in Uganda, York University, University of Calgary, Engineers without Borders (Canada), Radbound University Nymegen (Netherland), Somali International University (Somalia), Howest University (Belgium), KU Leuven (Peru), Charite University of Medicine, University of Heidelberg (Germany), University of East Anglia and the University of Southampton (UK), Powislanski University (Poland).

3.3.11 MUST events coordinated and stories published for increased partnership engagement and global visibility

MUST hosts deputy Ambassador of the People's Republic of China to Uganda	https://www.must.ac.ug/chinese-deputy-ambassador-visits-must/
MUST holds fruitful deliberations with Cuban Ambassador	https://www.must.ac.ug/must-holds-fruitful-deliberations-with-the-cuban-ambassador/
HAY! Symposium on adolescent health "Everyoneness a Key Implementation Pillar: Sharing Lessons Learned and Scaling up Best Practices."	https://www.must.ac.ug/must-hosts-a-successful-hay-symposium-on-adolescent-health/
the 1st Canada-Africa Innovation Fellowship 2024 under the Auspices of Engineers Without Borders, Canada at Mbarara University of Science and Technology Harnessing engineering to create a sustainable future	https://www.must.ac.ug/citt-hosts-the-1st-canada-africa-innovation-fellowship-under-the-auspices-of-engineers-without-borders-canada-at-mbarara-university-of-science-and-technology/ https://www.must.ac.ug/africa-innovation-fellowship-2024-engineering-solutions-for-a-changing-world/ https://www.must.ac.ug/harnessing-engineering-to-create-a-sustainable-future/
MUST explores partners in Greece	https://www.must.ac.ug/must-explores-european-partners-in-greece/
MUST new partnership signing with Handong Global University (HGU) in South Korea	https://www.must.ac.ug/must-partners-with-handong-global-university-in-south-korea/
Presentations for the MUST – Humasol engagements for clean water solutions through partnerships	https://www.must.ac.ug/must-embraces-clean-water-solutions-through-innovative-partnerships/
Strengthening MicroResearch developments through the Department of Maternal Newborn Child Health Research	https://www.must.ac.ug/microresearch-initiative-under-the-department-of-maternal-newborn-and-child-health-research-at-must-expands-to-uganda-prisons-service/ https://www.must.ac.ug/microresearch-hybrid-forum-2024-collaborative-research-for-community-solutions/ https://www.must.ac.ug/microresearch-hybrid-forum/
MUST explores Fulbright scholarship opportunities	https://www.must.ac.ug/must-explores-fulbright-scholarship-opportunities/
One health engagements at MUST	https://www.must.ac.ug/must-shines-at-the-africa-one-health-university-network-dissemination-meeting/
MUST- Powislanski partnership flourishing	https://www.must.ac.ug/must-strengthens-partnership-with-powislanski-university-in-poland/
Visiting Professors	https://www.must.ac.ug/visiting-professor-ross-boyce/ https://www.must.ac.ug/visiting-professor-noni-macdonald-co-founder-of-microresearch/
Celebrating USA independence day	https://www.must.ac.ug/happy-248th-usa-independence-day-celebrations/
World Food programme delegates collaborate with MUST	https://www.must.ac.ug/world-food-programme-delegates-visit-citt-on-site-seeing-visit/

Above L-R: Prof. Pauline Byakika-Kibwika receiving a gift from the Somalia International University (SIU) Vice Chancellor Dr. Mohamed Ali Ismail on 25th October 2025; MUST and SIU delegation after reviewing the partnership
Below: US Embassy Uganda delegates with MUST staff after discussing Fulbright Programme Opportunities

3.3.12 Institutions MUST subscribes too

SN	Name	Objectives
1	The Association of Common- wealth Universities (ACU)	Administers scholarships, grants, provides academic research and leadership on issues in the sector, and promotes inter-university cooperation and the sharing of good practice – helping universities serve their communities, now and into the future.
2	Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)	Supports Universities to address the important and largely unfulfilled role that Universities play in contributing to the well-being of small-scale farmers and economic development of countries through the sub-Saharan African region. Through their Graduate Training Assistantship (GTA), RUFORUM focuses on increasing the pool of PhD and Masters level trained academic staff in RUFORUM member Universities and African Universities.
3	Inter- University Council for East Africa (IUCEA)	Facilitate networking among universities in East Africa, and with universities outside the region Provide a forum for discussion on a wide range of academic and other matters relating to higher education in East Africa Facilitate maintenance of internationally comparable education standards in East Africa so as to promote the region's competitiveness in higher education.
4	African Forum for Research and Education in Health (AFREhealth)	Aims to improve healthcare in Africa by strengthening health professions education, research, and service delivery
5	Uga nda Vice Chancellor's Forum (UVCF)	Enhances the sharing of knowledge, information and practices and advises Government on various policies on promoting University Education, it also publishes and carries out any other activity intended to promote Higher Education in Uganda.
6	African Institute for Capacity Development (AICAD)	Linking knowledge to application within communities in order to reduce poverty in partner countries. Provide research project funding to enable Universities conduct outreach activities.

3.3.13 Institutional partnerships signed in 2024

S/N	University	Country	Status	Years	Period	Purpose	SDG	Alignment to NDP III
1	AP University of Applied Sciences and Arts	Belgium	New	5	8th February 2024 to 7th February 2027	Erasmus + project for staff and student exchanges	SDG 4- Quality Education	Human capital development
2	Radboud University	Netherlands	New	3	13th February 2024 to 31st December 2029	Erasmus + project for staff and student exchanges	SDG 4- Quality Education	Human capital development
3	University of Calgary	Canada	Renewed MoU	10	16th April 2024 to 15th April 2034	Staff and student exchanges, electives, conduct research	SDG 4- Quality Education SDG 3- Health and well being	Human capital development

4	Mzumbe University	Tanzania	New	5	5th April 2024 to 4th April 2029	staff and student exchanges, research	SDG 4- Quality Education	Human capital development
5	Engineers Without Borders	Canada	New	5	11th June 2024 to 10th June 2029	Student twinning programmes in technology	SDG 4- Quality Education	Human capital development
6	Handong University	South Korea	New	5	8th July 2024 to 7th July 2029	Staff and student mobility, development of academic programs, joint research and innovation activities	SDG 4- Quality Education	Human capital development
7	Istanbul University	Turkey	New	5	1st August 2024 To 30th July 2029	Erasmus + project for staff and student exchanges	SDG 4- Quality Education	Human capital development
8	University of Iceland	Iceland	Renewed MoU	2	10th October 2024 to 09th October 2026	Erasmus + project for staff and student exchanges	SDG 4- Quality Education	Human capital development

3.3.14 MUST institutional international partnerships and the engagement areas undertaken

S/N	Institution	Country	Purpose
1	Massachusetts General Hospital - the General Hospital Corporation	USA	Research, student placements, staff exchange, Support pediatric oncology
2	University of Calgary	Canada	Staff and student exchanges, electives, conduct research
3	DAAD	Germany	staff and student scholarships
4	Association of Commonwealth Universities	UK	staff and student scholarships, research grants
5	Government of Cuba with Government of Uganda	Cuba	Staff exchange
6	African Institute for Capacity Development	Kenya	Research capacity
7	University of North Carolina Chapel Hill	USA	Student placements, research, public lectures, research, staff exchanges
8	Massachusetts Eye and Ear Infirmary	USA	Visiting Professors, training
9	Africa Inland Mission International Central Region	USA	Visiting staff in Department of Physiotherapy
10	University of Virginia	USA	Staff exchange, student placements, research
11	Dalhousie University	Canada	Research,
12	Center for International Child Health British Columbia children's hospital Vancouver	Canada	Research,
13	University of Illinois	USA	Student electives, research
14	University of Malawi	Malawi	Research,
15	SVP Viswa Vidyapith	India	Academic exchange
16	Somalia International University	Somalia	Student elective placements

17	Stekom University	Indonesia	Staff and student exchanges, conduct research
18	University of Dodoma	Tanzania	Staff and student exchanges, conduct research
19	University of Antwerp	Belgium	Research, staff and student exchange
20	Western University	Canada	Research
21	The Royal Museum for Central Africa	Belgium	Research
22	University of Buea	Cameroon	Staff and student exchanges, conduct research
23	Howest University of Applied Sciences	Belgium	Research, Entrepreneurship development, staff and student exchange
24	Academics Without Borders	Canada	Staff exchange, Research
25	Halic University	Turkey	Research
26	California University of Science and Technology	USA	Research
27	IOWA State University of Science and Technology	USA	Research
28	University of Wisconsin	USA	Research, Continue following up on renewal and active involvement
29	University of Ngozi	Burundi	Participation in hack a thon
30	University of East Anglia	UK	staff and student exchanges, research
31	University of Edinburgh	UK	Research
32	University College Dublin	UK	Research
33	International Centre for Higher Education –UNESCO	China	Online engagements
34	FAIMER_AFREHealth	USA	online student placements
35	Health Volunteers Overseas	USA	Visiting Professors, Research, student electives
36	McMaster University	Canada	Visiting Professors, Student placements
37	Zamzam University	Somalia	student exchanges
38	Thomas Moore University	Belgium	staff and student exchanges, research
39	Mzumbe Uuniversity	Tanzania	staff and student exchanges, research
40	Duke University	USA	Research, Medical camps, Educational support
41	Engineers Without Borders	Canada	Student twinning programmes in technology
42	Inti International University and Colleges	Malaysia	Staff and student mobility, academic program collaboration, joint collaboration and research activities
43	Powislanski University	Poland	Erasmus + project for staff and student exchanges
44	Vrije Universiteit Brussels	Belgium	Erasmus + project for staff and student exchanges
45	Hellenic Mediterranean University	Greece	Erasmus + project for staff and student exchanges
46	Radboud University	Netherlands	Erasmus + project for staff and student exchanges
47	Istanbul University	Turkey	Erasmus + project for staff and student exchanges
48	AP University of Applied Sciences and Arts	Belgium	Erasmus + project for staff and student exchanges
49	Handong University	South Korea	Staff and student mobility, development of academic programs, joint research and innovation activities
50	Action for Natural Medicine - ANAMED International	Germany	Joint research ventures
51	Hochshule Mainz -University of Applied Sciences	Germany	Staff and student mobility, research
52	University of Iceland	Iceland	Erasmus + project for staff and student exchanges

Engagement session with partners from HOWEST

3.3.15 Partners with Research and Training projects; supervision of students and community engagement initiatives

S/N	Institution	Country	Nature of Partnership
1	National Institutes of Health	USA	Funds research and training
2	European Union	Belgium	Research, training and mobility funding
3	IDRC	Canada	Research projects
4	Global Affairs Canada	Canada	Funds Research and training
5	Interuniversity Council of East Africa	East Africa	Funds scholarships
6			
7	World Food Programme	Uganda Office	Research project
8	VLIR-UOS	Belgium	Funds research, training and mobility
9	Bill and Melinda Gates Foundation	USA	Funds research
10	University of San Diego	USA	Research
11	University of KwaZulu-Natal	South Africa	Research
12	University of Antwerp	Belgium	Research
13	University of Vrije Universiteit Brussels (VUB)	Belgium	Research, staff and student mobility
14	University of Ghent	Belgium	Research
15	KU Leuven	Belgium	Research
16	Lund University	Sweden	Research
17	Harvard University	USA	Research
18	Embassy of USA in Uganda	USA-Uganda	Mobility, research
19	University of Nairobi	Kenya	Research
20	Hawassa University	Ethiopia	Research
21	Medlend	USA	Fistula medical camps
22	Medicine for Humanity	USA	Fistula medical camps
23	Lund University	Sweden	Research and student supervision
24	University of Minnesota	USA	Research
25	Clerkson University	USA	Research
26	University of Pennsylvania	USA	Research
27	Colombia University	USA	Research
28	University of Cornell	USA	Research
29	Infectious Disease Institute	Uganda	Research
30	Nordic Africa Institute	Sweden	Library services
31	Karolinska Institute	Sweden	Research
32	Massachusetts Institute of Technology	USA	Research
33	Google	USA	Research
34	Insurance Training College	Uganda	Training
35	University of Reading	UK	Research
36	University of Oldenburg	Germany	Research
37	Free University Brussels	Belgium	Research
38	University of Cambridge	UK	Research
39	Perdue University	USA	Research
40	University of Santiego	Spain	Research
41	Yale	USA	Research
42	University of California Davis	USA	Research
43	Humasol	Belgium	Research

3.4 Human Resource Unit

3.4.1 Introduction

The Human Resource Department has 5 permanent employees and an annual operating budget of 43 million Uganda shillings. The Human Resources Team is charged with responsibilities that begin with employee entry into MUST up to exit. This report provides a summary of the trends in the workforce and related human resource activities with respect to the three pillars of the human resources: Attracting, retaining and exit.

3.4.2 Policies

The University staff were harmonised to match the University approved structure as approved in 2023.

3.4.3 Trends in the Workforce

3.4.3.1 Staffing levels

Our workforce is comprised of 579 employees appointed on permanent and contract positions, and 38 on part time basis.

Table 5: Number of employees by category and appointment status

Category	Permanent		Contract		Part time		Honorary		Total
	M	F	M	F	M	F	M	F	
Academic staff	163	112	02	00	23	15	01	01	**317**
Administrative staff	57	46	05	02	00	00	00	00	**110**
Support staff	133	68	00	00	00	00	00	00	**201**
Total	**353**	**226**	**07**	**02**	**23**	**15**	**01**	**01**	**628**

3.4.3.2 Newly Recruited Employees

A total of twenty-seven (27) new employees were brought on board; these were replacements to fill positions that were created due to exits.

Table 6: Employees recruited in 2024

Category	Number		Total
	Male	Female	
Academic staff	02	04	**06**
Administrative staff	03	01	**04**
Support staff	11	06	**17**
Total	**15**	**11**	**27**

3.4.3.3 Confirmation

The following staff were confirmed in the university service during the year

Table 7: Staff confirmed in 2024

Category	Number		Total
	Male	Female	
Academic staff	07	04	**11**
Administrative staff	02	01	**03**
Support staff	03	03	**06**
Total	**12**	**08**	**20**

3.4.3.4 Promotion
A total of eighty-three (83) employees were promoted through the harmonisation process.

Table 8: Staff promoted in 2024

Category	Number		Total
	Male	Female	
Support staff	37	46	**83**

3.4.3.5 Performance management
Staff performance assessment was done by use of performance appraisal forms. A total of Four hundred and forty-nine (449) staff were appraised as at 31st December 2024. The performance level for all the staff was above the average (good)

3.4.3.6 Training and Development
A total of Fifty-eight (58) employees were undertaking different training programs here at MUST and in other training institutions.

Table 9: Number of staff on different training programmes

Programme level	Number of females	Number of males	Total number
Post doc.	01	01	02
PhD	11	33	44
Masters	04	06	10
Bachelors	00	04	04
Total	**16**	**44**	**60**

Table 10: Staff on different training funding schemes

Funding scheme	Numbers per gender		Total number
	Female	Male	
Commonwealth scholarship	02	02	04
SIDA	01	06	07
AfDB	02	04	06
RUFORUM	01	01	02
Tuition waiver	11	28	39
Other scholarships	02	03	05
Total	**19**	**44**	**63**

Other trainings
Induction training for newly recruited employees was organised and conducted and a total of nine (09) employees were introduced to the working culture of MUST, policies and conditions of service.

3.4.3.7 Leave
Employees were permitted to take their leave and those who could not take leave because of official demands, had their leave compensated by carrying it forward to the subsequent year (2025).

Table 11: Staff who went on leave by category

Study leave with pay	Study leave without pay	Annual leave	Maternity leave	Paternity leave	Sick leave
06	02	212	03	00	04

3.4.3.8 Reward Management
All employees were paid their salaries in the reporting period following the Public Service salary structure. Statutory employee benefits such as NSSF and contract gratuity were paid to employees. Discretionary benefits such as allowances for staff as stipulated in the HR manual were also paid.

3.4.3.9 Exit
The following number of staff left MUST service due to different reasons.

Table 12: Staff who exited MUST in 2024

S/N	Exit factor	Numbers per category		Total
		Male	Female	
01	Retired	08	08	16
02	Resigned	03	01	04
05	Died	00	01	01
06	End of contract	04	00	04
	Total	**15**	**10**	**25**

3.4.5 Conclusion
Finding the right people for the right jobs is a rewarding task. Our diversity, equity, and inclusion efforts are embedded in every step of Human Resource Management practice. We are happy that we have remained on the cutting-edge of HR practice, and we are looking forward to a successful 2025.

3.5 University Secretary

3.5.1 Introduction
The Office of the University Secretary is the centre and engine of all university activities. Its mandate is to provide the University's overall governance, assurance and legal compliance. The Secretary provides advice and support to the University Council, to the Senate and to the Vice-Chancellor as the University's Chief Executive Officer. Currently, the Office is manned by only three staff; who are; the University Secretary, the Deputy University Secretary and the Administrative Officer.

3.5.2 Functions and responsibilities of the Office
(i)   Responsible for the general administration of the university (including the administration of funds and other assets)
(ii) Secretary to Council and its Committees
(iii) Accounting Officer of the University
(iv) Holds custody of the university seal
(v)   Performance management of the university staff
(vi) Providing legal advice to the university
(vii) Procurement, Management and custody of university assets
(viii)   Recruitment, retention and promotion of staff
(ix) Staff development/ career development (training and skills enhancement)
(x)   Responsible for the university strategic plans, policies and operating procedures.

3.5.3 Staff

Designation	Male	Female	Total in post	Staffing gap
University Secretary	01	00	01	00
Deputy University Secretary	00	01	01	00
Secretaries	00	02	02	00
Administrative Officer	00	01	01	00
Office attendant	00	01	01	01
Security staff	24	04	28	33
Farm staff	04	01	05	00
University Mechanic	01	00	01	00
Drivers	15	00	15	02
Vehicle attendants	01	01	01	01
Records staff	02	00	02	00
Senior Assistant Secretary	00	00	00	01
Principal Assistant Secretary	00	00	00	01
Legal Officer	01	00	01	03

3.5.4 Ongoing Activities

(i)   Coordination of administrative and financial activities of the university.
(ii) Management of the university vehicles
(iii) Ensuring the security environment of the university
(iv) Acquisition, control and disposal of university assets
(v)   Arranging, conducting Council and council committee meetings and ensuring timely implementation of Council decisions.
(vi) Budget formulation (Coordination), budget control and implementation.
(vii) Information management and control under the records section.

3.5.5 University Farm

The University Farm is being housed by the Faculty of Interdisciplinary Studies under the control of the University Secretary's office. The farm is manned by the Farm Manager, crop technician, security guard and herdsmen.

3.5.5.1 Status of the farm

The farm management after selling off 71 heads of cattle on 14/8/2023 as a way of establishing a modern way of farming, was left with only twenty seven heads of cattle (08 cows, 08 heifers, 03 steers, 03 female calves)

3.5.5.2 Partnerships and collaborations on the farm

(i) Paddocking of the farm: the faculty received fencing materials from SNV which also provided labour that streamlined the fencing of five paddocks and clearing of the bush therein.
(ii) Climate Smart Dairy Project: The project provided pasture seeds which were used to plant five acres of pastures, and the construction of the irrigation system.

3.5.5.3 Farm Achievements

(i)   The farm has been fully integrated into teaching through acting as a field laboratory for Agriculture students' practicals in course units such as Small Ruminants Production, Beef and Dairy Technologies, Apiary management, among others.
(ii) On 14th August 2023 seventy one heads of cattle were boarded off.
(iii) In the period of 12 months, farm sales have hit up to UGX 85,694,000 from Ugx 65,394,000 making 98.7% of total returns registered. Farm strategic intervention on pasture establishment and management at the Rukindo component in the University Farm feasibility plan (2022-2027) was implemented. Currently, six acres of pastures were planted at the farm with support from the University and other partners (Climate Dairy Smart Project and SNV-TIDE 2).

(iv)   Use of sexed semen to upgrade the current beef herd into dairy herd breeds was promoted which included: Holstein Fresian, Jersey, Brown Swiss, Sahiwal, and Simmental.
(v)   To improve on the quality and quantity of natural pastures on the farm, five paddocks were fenced by the University with support from partners (SNV).
(vi)   The university tractor has been used effectively on the farm to open land for planting pastures and also students' gardens for use in their experimental studies.

3.5.5.4 Plans available for the University Farm

The Faculty of Interdisciplinary Committee (FIS) together with the Farm management team will;
(i)   Continue using Artificial insemination to upgrade the herd;
(ii)   Fence the remaining three paddocks, and practicing paddock based rotational grazing;
(iii)   Construct a temporary hay barn, and conserving pastures into hay and silage for supplementary feeding of the milking herd.
(iv)   Integrate other livestock enterprises on the farm to facilitate students' learning and research such as Rabbit keeping and poultry keeping using locally available materials.

3.5.6 Transport Section

(i)   Some university vehicles are under faculties, projects, departments and entitled officers, leaving only a few under the direct management of the office of the University Secretary.

(ii)   The Deputy University Secretary manages the vehicles assisted by the university mechanic.

(iii)   The University is in the process of procuring a befitting vehicle for the new Vice Chancellor which will be purchased using part of the Supplementary funds.

(iv)   All service and maintenance of vehicles is outsourced because the university lacks facilities to carry out these functions. This in itself is a challenge to the section.

(v)   For a number of years, the university is unable to procure vehicles to enrich its fleet. This follows the government's ban on purchase of new vehicles. Meanwhile, the existing fleet is getting older and is experiencing quite high costs of maintenance. Boarding off is the last option, when costs of maintenance are far beyond the value for money. This leaves an aging and reduced fleet at the disposal of the university.

(vi)   The current fleet is quite inadequate to satisfy the university transport needs.

3.5.7 Legal Office

The University is in the process of establishing a fully fledged legal department. At the moment, the Unit now has a Legal Clerk to help in carrying out clerical work in the legal office. The office is expected to provide legal opinion to the whole university as well as represent the university in court in case there are court cases to settle thus demanding for more staff.

3.5.8 Security Section

The section offers a support function to the University by ensuring safety of personnel and security to property. It is supported by a private firm managing two campuses, and Grants Office project sites.

3.5.8.1 Equipment and supplies

(i)   The section has a motorcycle for the head of section
(ii)   The office has internet
(iii)   The section receives uniform (shoes and navy blue uniform with MUST logo) every two years
(iv)   The section receives stationery quarterly
(v)   Padlocks and chains from time as and when need arises are supplied
(vi)   Allowances and over loads are promptly paid apart from those that fall within the end of financial year

There is fire safety equipment both portable and fitted. The office has embarked on routine servicing of the equipment but it is not clear where they fall in the budget and there is no clear designation of a fire safety officer.

3.5.8.2 Future Plans
(i)   Arranging refresher courses for the security staff

(ii) Organizing sensitization meetings for staff and students

3.5.9 Records Section
(i)   This is a one stop centre where information is kept.
(ii)   The section houses all files on every subject in the university including staff open and confidential files.
(iii) The section is housed in one single room, with inadequate space to handle and professionally store away the files.
(iv)   All the files are in hard copy.

3.5.10 Governance Issues

3.5.10.1 University Council
The University is being managed by the Council which is the supreme organ of the University, responsible for the overall administration.

Council ensures due implementation of the objectives and functions of the University as established in accordance with the Universities and Other Tertiary Institutions Act, 2001 and has 6 committees namely;

(i)   Students Welfare and Disciplinary Committee
(ii)   Appointments Board Committee
(iii) Finance, Planning and Development Committee
(iv)   Risk and Audit Management Committee
(v)   Estates and Works Committee
(vi)   Legal Rules and Privileges Committee

3.5.10.2 Functions of the University Council
(i)   The University Council is also responsible for the direction of the administrative , financial and Academic affairs of the University;
(ii)   It manages and utilizes funds, assets and property movable and immovable in accordance with the Act and in such manner and purposes for promotion of the best interests of the university;
(iii) The Council has been effective in formulating the general guidelines to the administration and academic staff of the university on matters relating to the operations of the university.
(iv)   It makes all the necessary decisions conducive to the fulfillment of the objectives and functions of the university.

3.5.11 Awareness Issues
(i)   Management has provided official communication channels to create awareness between staff and students which has continued to improve on the situation.
(ii)   For security purposes; Management plays a vital role in sensitizing the entire university on the likely dangers and how to overcome them.
(iii) The University has counselors under the office of the Dean of students who have kept both staff and students mental health through counseling sessions.

3.6 Finance Department

3.6.1 Introduction
Finance department is a support service unit that manages the financial receipts and expenditures of the university through proper budget process, execution and monitoring. Finance department ensures proper financial controls are in place to promote efficiency and effectiveness in management of university resources, ensures proper receipt, custody and issues of university stores and proper management of university assets by maintaining an up-to-date assets register.

The key outputs include
(i)   Consolidated approved annual budget in place
(ii)   Quarterly budget performance reports discussed and submitted to respective ministries and entities
(iii)   Semi annual reports prepared discussed and submitted
(iv)   Nine months report prepared and submitted to the ministry
(v)   Audited annual financial reports
(vi)   Annual board of survey arranged and carried out with Office of Accountant General

3.6.2 Staffing
Finance department is staffed as below;

S/N	Name	Sex	Title
1	Magyezi Felix Amanya	M	University Bursar
2	Turyaheebwa Paul	M	Deputy University Bursar
3	Ndyaguma Francis	M	Principal Accountant
4	Kamugisha Peter	M	Senior Accountant
5	Mugisha Jim	M	Accountant
6	Yeheyo Ephraim	M	Accountant
7	Kekitinisa Lois	F	Assistant Accountant
8	Turyabanawe Evas	F	Assistant accountant
9	Namugosa Monica	F	Assistant Accountant
10	Turyatunga Frank	M	Assistant Accountant
11	Nafula Catherine	F	Assistant Accountant
12	Nsubuga Jovan Peter	M	Assistant Procurement Officer
13	Atuhaire Alex	M	Accounts Assistant
14	Komugisha Annet	F	Accounts Assistant
15	Kato Hanson	M	Accounts Assistant
16	Kyomuhendo Betty	F	Accounts Assistant
17	Ahimbisibwe Charity	F	Office Attendant
18	Aturinde Mackline K	F	Senior Administrative Secretary
19	Lis Turyaramya	F	Office Attendant

Total number of staff 18; Females 9 and Males 10

All finance staff were fully integrated into the new staff structure. Four staff attained promotions in the process and their salaries were increased. Though the department is not fully staffed, at least every faculty has finance staff stationed there to manage financial matters including central administration, ITFC and postgraduate studies. Finance department also provides oversight on all grant projects.

3.6.3 Budget performance and revenue collection
The financial year starts on 1st July and ends on 30th. June. Every financial year, the University prepares a budget through a participatory process up to approval by the University council and submitted to the Ministry of Finance Planning and Economic Development for consolidation. For the year ended 30th June 2024 the approved budget was UGX 60.391b and for 2023/2024 it is UGX 60,732b. The NTR collection is part of the approved budget; the current ceiling for 204/2025 is UGX 14.09b.

3.6.4 Achievements during the year

We have been able attain full deliverance on all deliverables

(i) Prepared and consolidated University budget for financial year 2024/2025

(ii) Quarterly budget performance reports for Q3 and Q4 2023/2024 and Q1and Q2 2024/2025 were prepared presented and discussed up to finance planning and development committee of council and eventually council

(iii) Semiannual report for period Jan to June 2024 and July to Dec 2024 were prepared and submitted to the Ministry of Finance Planning and Economic development

(iv) Final accounts for 2023/2024 were produced and audited by the Office of the Auditor General and unqualified opinion was given.

(v) Board of survey was constituted and the stocktaking exercise for year ended 30th June 2024 done

(vi) Budget framework paper for 2025/2026 was prepared and submitted

(vii) Continued to comply with statutory obligations like submitting URA and NSSF returns

3.7 Planning Unit

3.7.1 Introduction

The Planning Unit at MUST was established in 2002 as a Unit operating under the Office of the University Secretary until June 2023 when the new University structure transformed it into the Department of Planning and Investment. The Department is mandated to collect, organize, and preserve information and provide efficient access to published information on the University's built environment, as critical background material for university planning, new construction projects and renovations. In line with the University Strategic Plan, the Department contributes to the Strategic Objective 5: To strengthen efficiency and effectiveness of governance and management systems and processes, which is anchored to the Sub-Sub Programme 02 General Administration and Support Services under the Human Capital Development programme.

3.7.2 Functions and Responsibilities of the Department

The Planning Department is mandated to perform the following functions and responsibilities:

(i) Facilitating enhanced planning awareness and capacity building in MUST through support to all Faculties, Departments and Cost Centres;

(ii) Initiating and coordinating the university strategic/development planning process including: Long term; Medium term and Short term Plans.

(iii) Coordinating and facilitating studies, analyses and planning exercises on: Resource planning for the university, Needs assessment and Unit Cost.

(iv) Establishing and maintaining a reliable database for supporting the university strategic/development planning in form of a data bank of University facilities, resources in liaison with relevant departments;

(v) Initiating and coordinating the university budgeting, budget monitoring and reporting.

Although the Department has tried to perform its core functions, a lot of technical support and resources are still desired to achieve its mandate of providing high quality planning services for the University and individual Faculties, Institutes and Departments.

3.7.3 Staffing

The Department is currently run by three Staff equivalent to a rate of 23.1% of the approved establishment of 13 Staff. The staffing is summarised below:

Scale	Designation	Establishment	Filled	Gap	% Filled
PU3	Chief Planner	1	0	1	0%
PU4	Deputy Chief Planner	1	1	0	100%
PU5	Principal Planning Officer	1	0	1	0%
PU6.1	Senior Planning Officer	2	2	0	100%
PU6.2	Senior Investment Officer	1	0	1	0%
PU6.2	Planning Officer	2	0	2	0%
PU6.2	Monitoring and Evaluation Officer	1	0	1	0%
PU6.2	Investment Officer	1	0	1	0%
PU7	Assistant Administrative Secretary	1	0	1	0%
PU15	Office Attendant	1	0	1	0%
PU15	Driver	1	0	1	0%
	TOTAL	13	3	10	23.1%

3.7.4 Office

The Department is housed in two (2) Offices in the Faculty of Applied Sciences and Technology.

3.7.5. Ongoing activities/Services offered or rendered

3.7.5.1 University Budgeting, Budget Monitoring and Reporting

In line with her core functions, the Planning Department continued to coordinate and spearhead the University Budgeting, Budget monitoring and reporting processes. In the year 2024, the Department monitored and reported on the Budget performance for Quarter 3 and 4 of Financial Year 2023/24 and Quarter one of FY 2024/25 by preparing and submitting Quarterly reports to the Ministries of Finance, Planning and Economic Development and Education and Sports, following due approval of the University Council.

3.7.5.2 Budget process for Financial Years (FY) 2024/25 and 2025/26

The Department spearheaded and coordinated the Budget finalization process for FY 2024/25 by consultatively preparing the Ministerial Policy Statement, Approved Budget Estimates, Work Plans, Procurement Plan, Recruitment plan and Off Budget Estimates. It also coordinated the process of Budget Framework Paper (BFP) preparation for FY 2025/26 guided by the 1st Budget Call Circular (BCC) in line with the Public Finance Management Act 2015 (as amended).

The first BCC for FY 2025/26 highlighted among others: the Budget strategy for FY 2025/26 as premised on the NDP IV strategic direction and tenfold growth strategy under the Budget theme of: "Full monetization of Uganda's Economy through commercial Agriculture, Industrialisation, Expanding and broadening services, Digital Transformation and Market Access"

The Budget strategy is to prioritize investment in the following 4 anchor sectors as drivers of higher economic growth namely:

(i)   Agro-industrialization
(ii) Tourism development
(iii) Mineral-based industrial development including oil and gas
(iv) Science, Technology and Innovation including ICT (ATMS) – to which Mbarara University of Science and Technology mainly contributes.

As part of the Budget Framework Paper (BFP) preparation process for FY 2025/2026, the Department organized a stakeholders consultative workshop on the Budget for FY 2024/25 and on the performance highlights of the Strategic Plan 2020/21 to 2024/25 at Acacia hotel Mbarara, to inform priorities for the coming year. The workshops brought together 38 participants including: Deans, Directors, Faculty Administrators, Finance Officers, and Heads of Administrative Departments and Internal Finance and Budget Committee members.

3.7.5.3 Budget and Strategic consultative workshop
The Department organized the Budget and Strategic consultative workshop to equip and make participants understand:
(i)   The budget process from start to end
(ii)   Appreciate the Budget performance for FY 2023/2024 and execution challenges
(iii) The Strategic Plan performance highlights
(iv) Highlights of NDP IV and strategic focus of the MUST successor Strategic Plan

The workshop involved 38 participants who are directly involved in the Budgeting and Strategic Planning including: Deans, Administrators Heads of Department and Finance Officers from the various Faculties.

3.7.6 Budget Performance Highlights and Emerging for FY 2023/2024
The following Budget Performance highlights for FY 2023/24 were presented:

3.7.6.1 Budget Revenue performance
The approved university Budget totalled UGX. 60.384 billion, out of which 66.3% was for wage; 27.2% was Non-wage recurrent and 6.5% was Capital development. Out of the appropriated Budget, 95.3% was released and 97.8% of the release was spent. The cumulative Non-Tax Revenue collection for the period totalled UGX. 14,397,081,138 equivalent to 102% of the expected end of year collection of UGX. 14,089,000,000. Total collections during the year amounted to UGX. 18,112,044,036 of which UGX. 3,714,962,898 was clearing receivable for the previous years.

3.7.6.2 Summary of Vote Revenue performance

Table 13: Performance per key expenditure line

Budget Line	Approved Budget (UGX.)	Actual release (UGX.)	Actual Expenditure (UGX.)	% of budget released	% of release spent (Absorption)
Wage	40.006	39.924	39.416	99.8	98.7
Non-wage recurrent	16.423	15.637	14.893	95.2	95.2
Development	3.955	1.977	1.977	50.0	100.0
Total	**60.384**	**57.538**	**56.286**	**95.3**	**97.8**

Table 14: Performance per Sub sub programme

Programme: 12 Human Capital Development					
Sub Programme: 01 Education, Sports and skills					
Sub-sub Programme	Revised Annual Budget (UGX.)	Actual release (UGX.)	Actual Expenditure (UGX.)	% of budget released	% of release spent
01 - Delivery of Tertiary Education – Recurrent	40.728	40.310	39.144	99.0	97.1
02 – General Administration and Support services – Recurrent & Development	19.656	17.229	17.142	87.7	99.5
Total	**60.391**	**57.546**	**56.293**	**95.3**	**97.8**

3.7.7 Budget Expenditure performance

Table 15: Summary of Actual Expenditure to sub-sub programme

Programme	Sub-programme	Total Budget (UGX.)	Actual Release (UGX.)	Actual Expenditure (UGX.)	% Release Spent
Delivery of Tertiary Education	Faculty of Medicine	19.379	19.163	19.121	99.8%
	Faculty of Science	7.190	7.118	7.027	98.7%
	Faculty of Computing & Informatics	3.761	3.749	3.569	95.2%
	Faculty of Applied Sciences & Technology	3.406	3.387	3.370	99.5%
	Faculty of Business & Management Studies	2.773	2.755	2.683	97.4%
	Faculty of Interdisciplinary Studies	2.884	2.870	2.694	93.9%
	Directorate of Research & Graduate Training	0.950	0.884	0.464	52.5%
	IMNCH	0.028	0.027	0.026	96.3%
	CITT	0.357	0.357	0.190	53.2%
Sub-total		**40.728**	**40.31**	**39.144**	**97.1%**
Support Services	Central Administration	15.709	15.258	15.172	99.4%
	Total Recurrent	56.437	55.568	54.316	97.7%
	Infrastructure Development	3.422	1.906	1.906	100.0%
	Retooling	0.533	0.071	0.071	100.0%
Total Development		**3.955**	**1.977**	**1.977**	**100.0%**

3.7.7.1 Quarter 1 Budget Performance for FY 2024/25 and emerging Issues

Presented the Budget Performance Report for first quarter of FY 2024/2025 highlights including the approved budget appropriated amounting to UGX 61,035,634,529 under the three categories of Wage, Non-wage and, Capital development. For the 1st Quarter of FY 2024/2025, the University's Revenue Performance was optimal across all categories except Capital Development where the University did not receive any funds. The University's actual expenditure for wage within the first quarter of FY 2024/2025 represented an absorption rate of 79%. This absorption is not optimal mainly due to non-payment of some staff (65%) occasioned by transitioning from IPPS to Human Capital Management (HCM) which was partially implemented.

The Non-Tax Revenue collection for the period totalled to UGX 3,363,743,909 (96%) of the expected end of Q1 collection of UGX 3,506,000,000. This was due to the academic year having just started and many students were making payments and Clearing fees balances in preparation for Students' Graduation.

3.7.7.2 Key emerging issues to note in Quarter one (1) budget execution

(i) The transitioning from IPPS to HCM resulted into partial payment of staff salaries and wages as at 30th September 2024

(ii) Non-involvement of Finance officers in the Budget preparation process partially affected execution

(iii) Budgeting and resource planning needed to follow semesters

(iv) Procurement needs to provide price lists to user departments early enough to inform procurement initiation.

(v) Delayed payment by MOFPED and procurements affected the budget performance and delays in some planned activities.

(vi) Non release of Capital Development funds hinders completion of FCI building

(vii) Internet breakdown and unstable electricity (UMEME) affected workloads

3.7.7.3 Highlights of the Budget Call Circular for FY 2025/26

The University received the 1st Budget Call Circular (BCC) dated 13th September 2024, to kick start the preparation of the BFP and preliminary Budget Estimates for FY 2005/26 on Thursday 26th September 2024. The preliminary resource envelope for FY 2025/2026 was **UGX 57.44 trillion.**

The Budget for FY 2025/26 will be prepared under the theme:

> **Full monetization of Uganda's Economy through commercial Agriculture, Industrialization, Expanding and broadening services, Digital Transformation and Market Access" Industrialization for Inclusive Growth, Employment and wealth creation**

3.7.7.4 Issues to note /Emerging Issues in the BCC

(i)   The Budget ceilings for FY 2025/26, have been issued at programme level.

(ii)   Programme working groups are required to meet and agree on vote level allocations in line with the Budget strategy for FY 2005/26, the focus interventions in the tenfold growth strategy and the PIAPs. Programme lead ministries are required to submit agreed vote allocations to MoFPED for upload on the PBS by 11th October 2024

(iii) Vote Budgets should be aligned to the NDP IV Programme PIAPs and Ten-fold growth strategy priorities through strategic objectives and priority areas in the NDP IV and the PIAPs and interventions identified in the ten-fold economic growth strategy

(iv)   Prioritise critical interventions and core mandates of the Vote by focusing available funding on critical interventions and programmes essential to fulfilling the core mandates with highest multiplier effect, generate more public value and avoid spreading resources thinly across non-essential activities

(v)   Develop (SMART) key performance indicators (KPIs) to measure progress towards the targets set out in the PIAPs and ten-fold focus interventions

(vi)   Cash flow planning and activity sequencing.

(vii) Avoid a tendency of frontloading most activities in the 1st Quarter of the FY. Note that the government operates a cash budget system with significant obligations due in Q1.

(viii)   Should pay attention to critical areas prone to virements and supplementary expenditure during budget execution. The Ministry will not tolerate un necessary virements and supplementary requests

(ix)   Timely Budget documents submission. Any delays affect necessary analysis and submission of information to Cabinet and Parliament in violation of timelines stipulated in the PFMA 2015 and Budget process calendar.

Accurate estimation of NTR

Revenue generating votes are implored to accurately project NTR collection during the planning and Budgeting. Provide detailed projections by source to MoFPED to facilitate timely and comprehensive assessment.

3.7.8 Integration of off budget financing in the PBS

(i)   To avoid double accountability and reporting challenges, MDAs are required to

(ii)   Integrate all off Budget funding in respective work plans and Budget in the PBS;

(iii) Ensure interventions funded align to the NDP IV and PIAPs;

(iv)   Integrate in the work plans the intervention and outputs to be delivered, following the PBS structure

(v)   Strictly adhere to sections: 36, 39, 42 and 44 of the PFMA, 2015 (as amended) which authorizes the Minister of Finance to mobilise resources on behalf of Government

(vi)   Wage bill for FY 2025/26 is derived from findings of the Government payroll audit and verification exercise conducted by MoPS, and the wage bill harmonization exercise conducted between LGs, MoFPED and MoPS.

(vii) All MDAs urged to budget for salaries under the correct payroll categories in line with the joint recommendations of the harmonization exercise of August 2024. Wage estimates should correspondent with the staff lists submitted on the PBS as well as verifies NIN

(viii)   Following an annual review of the PIP for FY 2024/25, the Development Committee recommended exit of a number of projects from the PIP, the exited projects include one for MUST (Infrastructure). The projects will be frozen on the PBS and IFMS and any allocation to them rationalized to other critical expenditures of the Government.

(ix)   Operations and monitoring of public assets

(x)   Accounting Officers are required to develop and undertake regular inspections, timely repairs and updates aligned with the asset's specific needs. Guided by the Government Asset Management Framework and Guideline, 2020, adequate budgetary provisions for O&M be made under non-wage recurrent in preparation of budget

Gender, Equity, Women, Children, Elderly, HIV/AIDs Epidemics,   Malaria and PWDs

MDAs to ensure that their budgets address the Gender and Equity issues, needs of women, Children, the elderly, people living with HIV/AIDs, those affected by epidemics, malaria and persons with disabilities (PWDs)

3.7.8.1 Critical submission issues to note

(i)   Votes including MUST should prepare and submit their BFP and Preliminary Estimates for FY 2025/26 to the MoFPED by 7th November 2024 through the PBS to allow for analysis and consolidation of the NBFP for submission to Parliament in line with the PFMA, 2015 (as amended).

(ii)   The ceilings to inform Budget Framework Paper preparation have been allocated to the Programme.

(iii)   The need for detailed work/activity planning to ensure proper timing and costing as well as key performance indicators

(iv)   The University needs to pronounce itself on the operationalization of the new staff structure to guide allocation of ceilings

(v)   The new University Strategic Plan development process needs to be hastened in line with the NDP IV

(vi)   Awaiting pronouncement from Top Management about new cost Centres.

(vii)   Need to show unfunded Priorities

Recommendations

(i)   Advised to carefully plan cash flow requirements and sequence activities across subsequent quarters to ensure smooth financial management

(ii)   Accounting Officers are required to adhere to the guidelines stipulated in the BCC, the timelines in the Budget process calendar in line with the Public Finance Management Act 2015 (Amended) and the Budget Strategy

3.7.8.2 Performance highlights of the Strategic Plan (2020/21- 2024/25)

A presentation on the fours (4) year performance highlights of the Strategic Plan FY 2020/21-2024/25 in providing direction towards achieving the desired goals of the Institution was made.

3.7.8.3 NDPIV and Strategic focus of the MUST Successor Strategic Plan

Highlights of NDPIV and Strategic focus of the MUST Successor Strategic Plan FY 2025/26-2029/30. The Ministry of Finance, Planning and Economic Development has unveiled its much-anticipated National Development Plan IV (NDP IV), a strategic roadmap to propel the nation towards double-digit economic growth and a more prosperous future.

The goal of the NDP IV is to achieve higher household incomes and employment for sustainable socio-economic transformation."
NDP IV builds on the foundation laid by previous development plans, taking stock of past successes and shortcomings. It prioritizes sustainable economic diversification, moving beyond a reliance on traditional sectors like agriculture.

(i)   This plan is in line with His Excellency's ambition of growing the economy ten-fold, from USD 49.5 billion as of FY 2023/2024 to USD 500 billion in the next 15 years, in a transformative, inclusive and sustainable manner,"

(ii)   Firstly, NDP IV directly supports Uganda's Vision 2040, a long-term roadmap for transforming the nation into a developed and inclusive society.

(iii)   Second, the plan adheres to the United Nations' Sustainable Development Goals (SDGs), demonstrating Uganda's commitment to tackling global challenges like poverty, inequality, and climate change.

3.7.8.4 Key areas earmarked for growth include
(i)   Sustainable increase in production, productivity and value addition in agriculture
(ii)   Mineral extraction
(iii) The expanding oil and gas industry
(iv)   Development of a robust tourism sector.
(v)   Expanding importance of technology in the modern economy,
(vi)   Focusing on fostering advancements in information and communication technology (ICT)
(vii) Financial services.
(viii)   Enhanced human capital development
(ix) Standard gauge railway

NDP IV is also the last plan to deliver the Global Agenda 2030 of the Sustainable Development Goals (SDGs), and the first within the implementation of the Government's strategy for achieving 10-fold growth.
(i)   Mbarara University of Science and Technology has been implementing the five-year Strategic Plan FY 2020/21-2024/25 which has been providing direction towards achieving the desired goals of the Institution.
(ii)   This Strategic Plan was aligned to the National Development Plan III 2020/21-2024/25
(iii) The Strategic Plan (2020/21–2024/25) expires in June 2025. This therefore, means that legally (as per the NPA Act; NPA Regulations Section 8 (1) & 2 (b); and PFM Act), the draft Plan (2025/26 – 2029/30) should be ready by July 2025

3.7.8.5 Emerging issues
(i)   In the fulfilment of the University vision , Mission , Strategic objectives each Faculty, Departments and Units Should Prepare a baby Strategic Plan which will be integrated into the MUST integrated Strategic Plan 2025/26-2029/30
(ii)   Planning Department to allocate time to train cost Centres on how to develop a strategic plan
(iii) Comply with the contemporary strategic Plan
(iv) Faculty board meetings to invite planning Department to train on how to develop strategic plans

3.7.8.6 Budget execution and Emerging issues
Budget execution is defined as the process of putting a budget plan into action by allocating and spending funds according to the budgeted amounts and priorities. It involves implementing the financial plan that has been approved by Parliament and GOU through the Ministry of Finance planning and economic development. The resource/funds are allocated to the various activities at the cost Centres and expenditure made to support those activities in line with the financial plan as approved.

3.7.8.7 Budget execution Steps
Highlights of the budget execution Process include the following steps;
*   Funds Release
(i)   Release of funds is the process of making budgeted funds available for expenditure.
(ii)   It typically involves the approval and disbursement of funds by GOU
(iii) Timely and efficient fund release is crucial for ensuring that planned activities can proceed as scheduled
*   Authorization and Expenditure
(i)   Authorization is the approval or permission to spend budgeted funds for specific purposes.
(ii)   Authorized individuals at the cost Centres can incur expenses within budgeted limits with approvals from center heads
*   Compliance on budget limits
(i)   Adhering to financial rules, especially COA regulations, and budget limits. It's essential to ensure that expenditures do not exceed allocated budget amounts. Non-compliance can lead to financial penalties or misallocation of resources or mischarges.

*   Documenting Financial Transactions
(i)   Documenting financial transactions involves recording all transactions. Proper documentation provides a clear audit trail, and facilitates accurate financial reporting.

*   Accountability and Reporting

3.7.8.8 Emerging issues from the workshop

The following were the workshop emerging issues:

(i) Cost Centres must have their priorities right in line with the university core mandate
(ii) Need for realistic item costing and work planning
(iii) Need for continuous stakeholder engagement, awareness and communication cycle
(iv) Need for cost Centres collaboration during budget execution
(v) Finance Officers should be involved in the Planning, Budgeting and Budget Execution process to ensure responsibility sharing
(vi) Finance Department should share information on responsible Finance Officers attached to cost Centres
(vii) There is need for cost Centres to be mindful of requisition timelines to avoid blame game and ensure timely initiation of requisitions
(viii) Avoid mis-charges during budget execution but stick to work plans
(ix) Budget timelines are critical and must be followed to the dot
(x) Need for timely information flow on funds availability
(xi) Cost Centres urged to come up with their strategic plans to be submitted to the Planning Department
(xii) That the budget process starts immediately, all stakeholders should be part and participate in the Budget process.

3.7.8.9 Internal Finance and Budget Committee meetings

The Planning Office is the Secretariat to the Internal Finance and Budget Committee meeting under the Chairmanship of the Deputy Vice Chancellor, Finance and Administration. During the year 2024, the Department coordinated 6 meetings of the Committee to discuss and consider:

(i) Highlights the 2nd Budget Call Circular
(ii) Cash limits received from MoFPED
(iii) Draft Budget Estimates for FY 2025/26 from Departments
(iv) Quarterly Cash limits and Budget Performance Reports
(v) Strategic Plan Performance Report and dissemination
(vi) the MGOs Draft Budget Estimates and progress reports

3.7.8.10 University Strategic Plan (2020/21 – 2024/25) Performance Review

A comprehensive Assessment exercise of the expiring University Strategic Plan 2020/2021-2024/2025 was conducted by a team of technical officers selected from senior administrative Units to pick lessons learnt and challenges faced during its implementation and this will be good information for preparation of the new plan.

The assessment was carried using the Monitoring and evaluation Result Framework tool to collect data on Key performance indicators per objective. It also looked at how the planned interventions were able to score per objectives in terms of output. Data was collected from cost Centres mainly including: Faculties, Departments and also secondary data was used from available reports and documents.
Data was analysed at Indicator level and percentages were computed per Key performance indicator by comparing the set targets and actual output achieved.

3.7.8.11 Strategic Objectives that were assessed

This exercise critically analysed the performance of KPIs on all the Six Strategic Objectives as listed in the Strategic Plan:

(i) To increase equitable access to quality education in Science and Technology
(ii) To enhance the quality and quantity of Research, Innovation output and Technology transfer
(iii) To consolidate and enhance university outreach and community engagement
(iv) To strengthen ICT Infrastructure and support services
(v) To strengthen efficiency and effectiveness of governance & management systems and processes
(vi) To holistically boost the academic and social development of staff and students

Summary of Findings: All objectives

S/N	Objective	% achieved	Flag/ Objective
1	To increase equitable access to quality education in Science and Technology	69	
2	To enhance the quality and quantity of Research, Innovation output and Technology transfer	70	
3	To consolidate and enhance university outreach and community engagement	71	
4	To strengthen ICT Infrastructure and support services	77	
5	To strengthen efficiency and effectiveness of governance & management systems and processes	51	
6	To holistically boost the academic and social development of staff and students	50	
	Average score for all 6 strategic objectives	65	

3.7.8.12 Budget Performance During Assessment Period

S/N	Classification	STRATEGIC PLAN BUDGET (UGX. Bn)	MTEF Projections	Actual Received	% realised
1	WAGE	207.054	162.578	194.675	
2	Non-wage	95.751	60.196	69.627	
3	Development	80.487	15.109	10.525	
	Total Budget	383.292	237.883	274.827	**71.7%**
4	Off budget		78.66	81.308	

The overall budget performance for the four years that were assessed was UGX. 274.8 billion when compared to the overall budget requirement that was expected during that period of UGX. 383.3 billion and this represented 71.7%

3.7.8.13 Conclusion

Lessons Learnt

(i) The successful implementation of the University's strategic plan requires commitment of management at all levels to ensure there is continuous alignment of annual priorities and budgets to the plan

(ii) Enhanced human and financial resources capacity is critical for successful implementation of the University's strategic plan. The key driver for human resource capacity is adequate wage bills for recruitment and promotion as well as funding and scholarship for capacity building.

(iii) The University to embrace and support Information and Communication Technology (ICT),quality assurance, performance management and monitoring & evaluation for improvement of efficiency and effectiveness in service delivery.

(iv) Improvement in data management as a crucial basis for monitoring the progress in the implementation of the plan. This can be achieved through deployment of management information systems and conducting regular needs assessments to inform baseline information.

(v) The university to improve integration of off budget support to the implementation of the Strategic plan through a clear reporting procedure on Grant deliverables achieved.

3.7.8.14 Recommendations

(i) The Process of Preparation of the University **Comprehensive Resource Mobilisation/Lobbying Strategy should be fast tracked** to bridge the funding gap so as to enhance performance

(ii) There is a need to ensure Efficient and frugal utilization of resources. This refers to prudent use of available resources by the university.

(iii) There is a need to have inclusive and participatory planning in the University. This refers to popular participation of the key stakeholders in deciding their choices of service delivery.

(iv) There need to exploit Public-Private Partnerships to bridge the funding Gap

(v) The university develop the university business plan for internal revenue generation

The draft Strategic Plan performance assessment report was later presented to the Top Management Committee and the Finance, Planning and Development Committee of Council.

3.7.8.15 Staff Capacity Development

The 3 staff of the Planning Department attended various training to equip them with knowledge and skills for execution of their duties. The Staff trained included:

(i) Mr. Charles Mwebaze – pursuing a Post graduate Diploma in Monitoring and Evaluation at UMI

(ii) Ms. Celestine Drakaru - Certificate in Administrative Law at LDC

(iii) Ms. Robinah F. Nakakeeto

a) Attended and successfully completed the Administrative Officers' Law short Course offered by Law Development Centre, Mbarara from April to 14th July 2024

b) Impact Evaluation Training by Office of the Prime Minister with support from Makerere University School of Public Health, July 2024

c) User Acceptance Training and capacity building on the revised guidelines for issuance of Financial Clearance (CFI), November 2024

3.7.8.16 University Development Project preparation coordination

The Planning Department is spearheading the process of Projects development through the University Project Preparation Committee (PPC), under the guidance of the Development Committee in the MoFPED. The proposed Mbarara University of Science and Technology Infrastructure Development successor Project Feasibility report was considered and approved by the Development Committee and Ministry of Finance Planning and Economic development on condition of carrying out an Environment and Social Impact assessment. The procurement of a Consultant to undertake the Designs and Environmental Impact Assessment is still ongoing.

3.7.8.17 Future Plans of the Planning Department

The Planning Department looks forward to growing into a fully-fledged and functional Planning Department with more Technical and support Staff to improve the efficiency and effectiveness of the planning function at MUST.

The Department also plans to increase stakeholder engagement and sensitization on the Planning and Budgeting activities so as to increase participation and stakeholder engagement and buy-in.

To prepare for organized, systematic growth of the university infrastructure, human resource, and academic programmes to match with the university and community needs.

3.8 Procurement Unit

3.8.1 Staffing Levels

Current Staff Title	Proposed Title	Approved Number	Staff in Post	Sex	Unfilled Positions
Principal Procurement Officer	Chief Procurement Officer	1	1	M	0
Senior Procurement Officer	Deputy Chief Procurement Officer	1	1	M	0
Nil	Principal Procurement Officer	1	0		1
Nil	Senior Procurement Officer	1	0		1
Procurement Officer	Procurement Officer	1	1	M	0
Nil	Assistant Procurement Officer	1	0		1
Nil	Stenographer Secretary	1	0		1
Office Attendant	Office Attendant	1	1	F	0
Total		**8**	**4**		**4**

3.8.2 Ongoing Activities/ Services offered or rendered
The unit played its mandate of managing the procurement and disposal function of the entity (MUST) as provided for by the PPDA Law.

3.8.3 Facilities - Space Capacity
Office space occupied by the current 4 members of staff is generally not enough. As a result, the members of staff are operating from a squeezed environment which is a demotivating factor for the staff.

3.9 Legal and Advisory Services

This report provides a comprehensive overview of the Legal Department's activities throughout the year, emphasizing our unwavering commitment to legal excellence, advisory services, litigation management, policy development, and statutory compliance. Our collective efforts have significantly strengthened the University's legal standing, ensuring that its operational and academic objectives are met while upholding its distinguished reputation within the legal and regulatory framework. Key achievements include securing favourable rulings in multiple court cases, reinforcing institutional compliance, and advancing policy development initiatives. However, staffing constraints and budgetary limitations continue to present operational challenges.

3.9.1 Legal Department Overview
The Legal Office at MUST is responsible for providing legal guidance, managing litigation, overseeing policy development, and ensuring compliance with statutory frameworks. Operating under the University Secretary, the office consists of a Senior Legal Officer, a Legal Clerk, and an Office Attendant. It also functions as an independent legal chamber, officially recognized by the Law Council.

3.9.2 Legal Advisory and Compliance
Throughout 2024, the Legal Office provided extensive legal guidance to the University Council, management, and various stakeholders. Our key areas of focus included Legal representation, contract reviews, legal opinions, institutional governance, and compliance monitoring. The office played a critical role in ensuring adherence to the Universities and Other Tertiary Institutions Act, internal policies, and other regulatory frameworks

.3.9.2.1 Detailed Litigation Overview
Total caseload: a total of 9 cases were ongoing in 2024, some inherited from previous years, with a total of 4 concluded and 5 on going.

3.9.3 Policy Development and Review

The Legal Office played a key role in the formulation, review, and implementation of several institutional policies to enhance governance and regulatory compliance. The following policies were developed or amended in 2024:

(i)   Space Allocation Policy
(ii) Grants Management Policy
(iii) Communication Policy
(iv) Council Scholarship Fund Guidelines
(v)   Litigation Policy (draft under development)

The Legal Office worked closely with the Legal, Rules, and Privileges Committee (LRPC) to harmonize and streamline policy documentation, ensuring their effective implementation.

3.9.4 Legal Capacity Building and Training

In 2024, the Legal Office was involved with other offices in multiple capacity-building initiatives to enhance legal awareness and compliance across the University. These included:

- Legal Trainings and Workshops for members of staff on intellectual property protection, Data protection, governance, sexual harassment and disability rights
- Sensitization sessions for students on University policies and conduct.

Additionally, the legal office through the Legal Rules committee recommended the development of a structured Induction Program for new Council members and staff to facilitate smoother integration.

3.9.5 Recommendations

(i)   Recommendations
(ii) Expand the Legal Office staffing by recruiting additional personnel to
(iii) Strengthen policy dissemination mechanisms to ensure effective implementation of newly passed policies.
(iv) Develop a Litigation Policy to standardize legal case handling and execution of awarded costs.

3.9.6 Conclusion

The Legal Office had a productive year in 2024, making significant contributions to University governance, compliance, and litigation management. Despite challenges related to staffing and budgetary constraints, the office successfully navigated complex legal matters and secured favourable legal outcomes. To sustain these achievements, MUST should prioritize budgetary independence, technological advancement, and capacity expansion within the Legal Office. Continued collaboration with management, Council, and external legal institutions will be essential in solidifying the office's role as a pillar of legal excellence at MUST.

3.10 Estates and Works Department

3.10.1 Infrastructure Development and Maintenance

For the year just concluded, MUST achieved some tangible outputs in the area of construction of new infrastructure and maintenance of existing ones despite inadequate funding.

3.10.2 Kihumuro Campus

3.10.2.1 Faculty of Computing and Informatics (FCI)

The University was able to complete phase II of the Proposed Faculty of Computing and Informatics at Kihumuro. After completion of the external works of the proposed Faculty of Computing & Informatics at Kihumuro, the building will provide adequate teaching space for both students and staff and to decongest the town campus where the faculty is surviving through sharing space in other Faculties and Departments, the University has undertaken the second phase which commenced on 26th November 2020 worth UGX 8.3bn. The works are past 90% although hampered by University's incapacity to clear outstanding certificates to the contractor, otherwise the works would have been completed by now. A deliberate effort has been put in place by the University to procure additional furniture to address the increase in enrolment and the wear and tear, and to focus on furnishing the new Faculty of Computing and Informatics block as it nears completion. This is procured centrally.

3.10.2.2 Design for Faculty of Science and Administration Block

The University engaged National Housing and Construction Company Limited to undertake the Designs and documentation of both the Faculty of Science and Administration block, whose work has so far reached 50% progress. The designs and EIA once completed, will enable us to secure a development code under IBP (Integrated Bank of Projects)

3.10.3 City Campus

3.7.3.1 Renovation of Old infrastructure

The University has planned to undertake the renovation of the Pathology Block at Town Campus (Faculty of Medicine) for the second phase. The second phase planned in this year is expected to cost UGX 600M.

3.10.4 General Maintenance

Estates has been able to register a number of achievements in areas of; plumbing systems maintenance, electrical systems maintenance, ground / compound maintenance, building cleaning and recently work done on grading of roads at Kihumuro Campus.

3.10.5 Staffing

5 staff members have been recruited to the department. They include; Senior Estates Officer, 2 Assistant Engineering Officers, an Electrician and a plumber. However, the department remains under staffed to enable it to execute its mandate.

3.11 Internal Audit

3.11.1 Mandate

The Internal Audit derives its mandate from section 48 of Public Finance Management Act, 2015, which requires every vote to have an internal auditor whose role include;

i) Appraise the soundness and application of accounting, functional and operational controls of a vote.
ii) Evaluate the effectiveness and contribute to the improvement of the risk management process of a vote.
iii) Provide assurance on the efficiency and the effectiveness of the economy in the administration of the programmes and operations of the Vote. The Internal Audit Charter gives the Internal Auditor mandate to carry out an independent audit of the University accounts and operations and report to Council through the Audit and Risk Management Committee on findings and recommendations.

3.11.2 Objectives

The main purpose of the audit was to find out whether the University carried out its activities efficiently and effectively in accordance with regulations and laws governing the University. In conducting reviews, special attention was given to:-

i) Whether all funds were utilized with due attention to economy and efficiency and only for the purposes for which they were provided.
ii) Whether goods and services have been procured in accordance with Government of Uganda Procurement regulations and guidelines.
iii) Whether the University had sufficient internal control structures and the internal controls were working as intended.
iv) Whether Management complied with Government of Uganda laws in all its operations.
v) Whether all necessary supporting documents, records, and accounts have been kept in respect of all activities and transactions.
vi) Whether all procured items were delivered to stores and independently verified by the internal auditor.
(vii) Whether the core objectives of the University are promoted and given priority in resource allocation.

3.11.3 Staffing Levels
3.8.4.1 Harmonised Internal Audit Staff Structure

S/N	Position	Establishment Approved No.	Scale	Filled	Vacant	Gender		Total No.
						Male	Female	
1	Chief Internal Auditor	01	PU3	01	00	01	00	01
2	Deputy Chief Internal Auditor	01	PU4	00	01	00	00	01
3	Principal Internal Auditor	01	PU5	01	00	01	01	01
4	Senior Internal Auditor	01	PU6.1	01	00	00	01	01
5	Internal auditor	01	PU6.1	01	00	01	00	01
6	Assistant Internal Auditor	02	PU6.2	00	02	00	00	02
7	Assistant Administrative Secretary	01	PU7	00	01	00	00	01
8	Driver	01	PU15	00	01	00	00	01
9	Office Attendant	01	PU15	00	01	00	00	01
	Total	**10**		**04**	**06**	**03**	**01**	**10**

3.11.4 Ongoing activities
(i)   Audit of Non Tax Revenue collection and management in the University
(ii)   Verification of Procurements in the University
(iii) Audit of stores to verify whether supplied items conform to standards/ specifications
(iv) Audit of Management of utilities
(v)   Management of Assets and Inventory
(vi) Human Resource Management Audit
(vii) Budget Efficiency and Control
(viii)   Vehicle and Fuel Management
(ix) Review of project performance
(x)   Reviewed quality assurance issues
(xi) Students' welfare, environment and community placement audit
(xii) Audit of University land
(xiii)   Audit of Non tax revenues

3.11.5 Facilities
The Internal Audit office has offices located at Kihumuro campus after having shifted to the town campus office. It is hoped to improve efficiency and coordination in management.

3.11.6 Future Plans of the unit
(i)   To upgrade Internal Audit staff skills through specialised training and Continuous Professional Development courses.
(ii)   Staff to undertake Professional courses CPA and ACCA to be relevant to the unit.

3.12 Dean of Students

3.12.1 Mandate of the Department

In accordance with the Universities and other Tertiary Institutions Act, 2001(as amended in 2003 and 2006) and the University Council, the Dean of Students Department is charged with the responsibility of facilitating students' welfare and discipline.

The Dean of Students Department develops leads, assesses and coordinates programs and services that advance the mission and vision of the institution. The Department supports student learning, assists students in achieving their potential and enhances the students' experience. The department consists of experts on student services who ensure that the policies, services and programs enhance the students' learning experience. The Department is responsible for ensuring quality, values-oriented professional learning culture among students and promoting a culture of fairness, valuing differences, justice, and student empowerment. The Dean of Students is responsible for student judicial/disciplinary procedures that ensure a fair and thorough process that focuses on learning rather than punitive outcomes. The office ensures that judicial procedures are coherent, published widely, and in harmony with academic policies and processes. The Dean of Students serves as a liaison to and communicates with a variety of external persons, services and agencies in pursuit of improved student services delivery.

Specifically, the Dean of Students Office oversees the campus non-academic aspects of students. The office also helps students navigate challenges such as personal crises, emergencies, unanticipated financial challenges, and other unusual situations. The Office also helps students who would like to submit a complaint or concern by sharing processes/procedures and options.

3.11.2 Staff structure

Staff	Approved	Available	Gap
Dean's office			
Dean of students	1	1	0
Deputy Dean of students	1	1	0
Gender and equity officer	2	0	2
Interpreter	1	0	1
Administrative officer	1	1	0
Assistant administrative officer	1	1	0
Assistant administrative secretary	2	1	1
Driver	1	1	0
Office attendant	1	1	0
Halls of residence			
Senior warden	2	1	1
Warden	2	0	2
Senior custodian	2	2	
Custodians	4	3	1
Office attendants	18	11	7
Games & sports unit			
Senior sports tutor	1	0	1
Sports tutor	3	1	2
Assistant sports tutor	3	0	3
Sports facilities supervisor	2	2	0
Office attendant	2	0	2
Counselling unit			
Senior counsellor	1	0	1
Counsellor	2	1	1
Assistant counselor	2	0	2

3.12.3 Goal of the Department

Goal: The Department aims to holistically boost student wellbeing by creating a welcoming and supportive environment that promotes diversity, equity, and inclusion for students from various backgrounds.

Mission: To empower students at MUST by fostering an inclusive and engaging environment that promotes social justice, equity, academic success, growth and access to learning and working opportunities.

Vision: To create a MUST where every student, regardless of their background, feels embraced, valued, and empowered to participate fully in society. We envision a community where diversity is celebrated, equity is achieved, and inclusive practices are woven into the fabric of everyday life.

3.12.4 Core functions

The department functions include among others, providing support for students, addressing student behavior and coordinating new student orientation.
(i)   Student Governance
(ii)   Sports Activities
(iii)   Guidance and Counselling
(iv)   Student Housing
(v)   Student Food Services
(vi)   Student Orientation
(vii)   Gender and Equity
(viii)   Peer education Services
(ix)   Disability and Special Needs
(x)   Chaplaincy and Multi-faith services

3.12.5 Core Strategic Objectives

(i)   To enhance student support services
(ii)   To foster an inclusive and diverse campus community
(iii)   To ensure effective communication and collaboration

3.12.6 Guiding principal

(i)   Equitable access to quality services by all students
(ii)   Provide support services to students on and off campus
(iii)   Support to student governance

3.12.6 Situation Analysis

The Department is in charge of overseeing student life, student services and on/off-campus activities. The office functions include providing support for students, addressing student behavior and coordinating new student orientation in order to facilitate a conducive learning environment.

S/N	Functions	Activities
1	Student Governance	Mentorship and training for student leaders Oversee guild activities Liaison between students and management
2	Sports Activities	Plan, organize, and oversee student sports programs and activities, Organize sports competitions, tournaments, and inter university games, Ensure the maintenance and availability of sports facilities and equipment.
3	Guidance and Counselling	Provide emotional and psychosocial support to students facing personal challenges Train and support peer counsellors/peer educators to provide basic guidance to fellow students Educates and supports students struggling with mental health issues
4	Student Housing	Allocate rooms and manage student housing facilities Liaise with private hostel owners and set minimum standards in liaison with the city authorities Provide support for students' wellbeing.
5	Student Food Services	Ensure food safety and hygiene standards in the cafeterias Ensure service providers adhere to the contract terms.
6	Student Orientation	Help new students transition into university life by introducing them to campus culture and resources Provide guided tours of academic buildings, residence halls, libraries and other facilities
7	Chaplaincy and Multi-faith based services	Liaise with leaders of recognized faith based organizations who minister to students on matters of spiritual support Promote understanding, respect and collaboration amongst students of different religious backgrounds Engage faith based leaders in fostering academic excellence Offer guidance on ethical and moral issues

3.12.7 Performance with regards to cross-cutting issues

The Department continued to adhere to the Gender and Equity planning and budgeting guidelines as provided. The approved policies for Gender, Special Needs and HIV/AIDs and Anti Sexual Harassment will be implemented during fulfillment of the University's mandate while undertaking activities that address gender specific concerns, and any vulnerable groups of students.

	Key areas	Activities	Challenges identified	Recommendations
HIV	Awareness & education programs	Workshops & peer educator's trainings Health campaigns Commemorations on world AIDS day & AIDS candlelight memorial.	Low engagement in trainings Limited funding	Use of digital platforms for awareness Collaborate with health organizations
	HIV testing & counseling	Voluntary counselling & testing Referral systems	Low uptake of testing Stigma and fear for discrimination	Strengthen privacy measures
	Condom distribution & safe sex promotion	Outreaches to hostels and colleges Available condom dispensers per faculty and inside hostels	Conflicting belief systems	Engage different stakeholders in understanding the importance of taking safe and informed decisions
	Support for HIV – positive students & staff	Access to medical services at the various treatment centres, Support to peer support groups (MPP & HIPROAR)	Fear for disclosure	Strengthen peer support groups Improve confidentiality policies.

Disability and special needs	Awareness and sensitization	Disability awareness campaigns Sensitization workshops for staff & students Inclusive education training	Stigma and discrimination persist Limited engagement for non-disabled individuals	Strengthen advocacy programs Involve PWDs in awareness activities
	Accessibility & infrastructure	Ramps, elevators and accessible pathways Disability-friendly restrooms and classrooms Assistive technology	Inadequate accessible infrastructure Limited assistive devices	Improve physical accessibility Increase budget for assistive technologies
	Academic support & inclusivity	Special examination arrangement when required (eg; extra time), assistive devices) Sign language interpreters Inclusive teaching methods	Limited awareness among faculty Shortage of trained staff	Train lecturers on inclusive education Hire more support staff
	Psychosocial & emotional support	Counseling services tailored for students with disabilities Peer support groups Mental health and well-being programs	Fear of stigma discourages use of services Limited specialized counselors	Strengthen confidentiality Train in disability-sensitive counselling
	Financial support & scholarships	Scholarships and financial aid for students with disabilities Grants for assistive devices and medical needs	Insufficient funding	Increase funding for disability programs Streamline the application process

Gender and equity	Gender awareness & sensitization	Workshops & trainings on gender issues Gender equality campaigns	Cultural resistance to gender discussions	Strengthen collaboration with advocacy groups
	Equity & inclusivity programs	Policies to promote equal opportunities	Unequal representation in leadership Limited awareness of existing policies	Strengthen enforcement of equity policies Conduct regular sensitization
	Gender based violence (GBV) prevention	Reporting mechanisms for harassment Counselling and legal support for survivors Anti-GBV awareness campaigns	Fear of reporting due to stigma Inadequate support structures	Strengthen confidentiality in reporting Increase survivor support programs
	Women & minority empowerment	Leadership training for women and minorities Economic empowerment programs Networking and mentorship opportunities	Low participation due to social barriers Limited funding for empowerment activities	Provide more leadership training Increase funding for empowerment initiatives
	Student and staff well-being	Gender responsive counseling services Equity in access to mental health support Facilities for students with disabilities	Limited awareness of support services Insufficient gender-sensitive facilities	Enhance promotion of counseling services Improve infrastructure for inclusivity.

3.12.8 Key achievements during the year 2024

	Key Achievements
	Engaged hostel owners on minimum acceptable standards required to accommodate students
	Mobilized the communities close to Kihumuro campus to construct accommodation facilities for students (an ongoing initiative)
	Engaged faith based organizations to support students to maintain focus on the academic goals
	Meeting of students living with disabilities from institutions of higher learning
	Commemorations of days – 16 days of activism, World AIDS Day, International day of PWDs, AIDS Candlelight, International Women's Day
	Training workshops – sign language, peer educators, basic counselling, guild leaders and class presidents, advocacy for disability Community outreaches – inclusive primary and secondary schools, peer educator outreaches
	Benchmarking at Kyambogo University about continuation of sign language training at MUST and establishment of MUST inclusion centre and meeting possible funders at CSTS offices
	Participate in intramural and extramural sports activities. Held interfaculty games, Participated in the East African games at Maseno University in Kenya in December 2024

The University participated in FEAUS 2024 at Maseno University in Kenya. The students participated in 6 out of the 19 sports disciplines, namely; (Volleyball Men, Basketball Men, Lawn Tennis (Men & Women), Table Tennis (Men & Women), Scrabble (Men & Women) and Chess (Men &Women). A total of 39 universities competed and MUST was ranked 20th at the end of the championship.

Mbarara University was represented by 50 athletes (14 Women and 36 men) that competed in the following games;

Scrabble:
8 students competed both in men and women; men were 2nd overall (Silver) and women 5th overall.

Chess
8 students competed both in the men and women category. Daphine Munnu Namuwaya got a gold medal individually. The ladies team was ranked 3rd and the Men's team finished 4th.

Table Tennis:
The team comprised 6 students both men and women. The men's team was eliminated in the quarter final and ranked 6th in men and 9th in women overall.
Tennis
The team comprised 6 students that competed in both categories of men and women. The men were 7th and women 9th overall.

Volleyball
The team comprised 12 students that played 3 games; won 1, and lost 2 games against Mount Meru University of Science & Technology (3:0), KIU (2:3), Maseno University (1:3) respectively. The team finished 3rd in the group.

Basketball
The team comprised 10 students that played 2 games and lost 45:37, 39:38 to United States International University-Kenya and University of Nairobi respectively.
Interfaculty games
The MUST interfaculty games are ongoing and the students are actively participating.

3.12.9 Counselling Services
Counselling services for students and staff are provided on both the Town and Kihumuro campus. An increasing number of students continue to present with mental health issues (e.g. depression, anxiety, bipolar affective disorders, psychosis, alcohol and drugs), relationship challenges, academic challenges, financial challenges. Appropriate referrals are made where necessary but mainly to the psychiatry ward for assessment and treatment.

3.12.10 Strategic Direction
The overarching purpose of the department is to have an all-round graduate that is ready to embrace the world outside campus. This will be achieved by improved welfare, engagement and discipline, students health care(physical and mental), and ultimately boosting academic excellence.

Departmental Objectives and adopted intermediate Outcomes

objectives	Intermediate outcomes	outputs	Intervention/activities	Responsible persons
To enhance student support services	Increased active student participation in sports	New sports disciplined introduced Sports policy developed Temporary sport facilities constructed at Kihumuro campus	Providing sports equipment Developing sports structures Sensitizing students about sports	Sports tutor
	Improved health	Accessible clinic services at both campuses Students and staff Trained	Conducting Voluntary and group counselling Training Peer educators on reproductive health and life skills Counselling referred clients Distributing condoms when out for outreaches.	Counsellors, focal persons
	Easy access to the university facilities	Students are accommodated	Hostels with in the university	Custodian, wardens
	Safety of students is secured	Students are accommodated	University hostels	Custodian, wardens
	Enhanced campus experience	Student leaders continuously engaged	GRC meetings	Dean of students
	Concentration levels are enhanced	Students are accommodated		
To foster an inclusive and diverse campus community	Reduced stigma	Workshops (sensitization, creating awareness, advocacy) VCTs	Outreaches to different hostels and schools Increased Sensitization Assessment for provision of assistive devices and services	Focal persons, peer educators
	Self-awareness		Outreaches to different hostels and schools Increased Sensitization	
	Increased emancipation	Workshops sensitization, creating awareness, advocacy)		
	Increased access	VCTs Accessibility audits Signage	Assessment for provision of assistive devices and services	
To ensure effective communication and collaboration	Improved university image	Participation in national, international and regional games Participation in inter faculty games	Meeting with higher institutions of learning Outreaches to different schools, colleges and institutions Voluntary counselling and testing with AIC Commemorations	
	Create an informed policy environment	Different policies are implemented (HIV, gender, special needs)		

3.12.11 Scholarship support for students

During the year, a number of organisations continued to support our students. Some have ongoing MoUs with the University. Below is a summary of the number of students being supported by the different organisations for the academic year 2024/2025. These include;

	Scholarship	No. of students
1	Government Of Uganda	634
2	Help to Help (Swedish Based NGO)	60
3	Test for Uganda (As part of Test for Africa)	9
4	Madhvani Foundation	52
5	State House	12
6	Father Bash Foundation	27
7	FAWE	22
8	HAASE Foundation (Resuming August 2025)	Have supported 12
9	DAAD (Post graduate)	36
10	Cyberschool – Mastercard (New)	26
11	UPDF	11
12	TWASI Project	2
13	UCoBS	11
14	FIRST MILE	6
15	BUGISU COOP UNION	1
16	SOMALIA (Occasional Students)	12
17	International Science Project (PhD)	6
18	Interact Africa Project	7
19	ATRAP Project	4
20	ABACUS	2
21	Pharmaceutical Society Of Uganda	2
22	HESFB (Loan Scheme)	158

4. LIBRARY DEPARTMENT

4.1 Introduction

Mbarara University of Science and Technology (MUST)library was established right from the inception of the University in 1989. The main mandate of the University library ever since then has been mainly to support and supplement the teaching, learning, research and the community engagement activities of the University. This support is done through the provision of information and other library research services. The key functions of the library service are;

(i) To select and acquire the best and affordable current information materials to support the diversified academic and professional fields offered by the University and provide general support to national development.
(ii) To effectively process, preserve, provide access to and/or disseminate information available in the library or through international databases.
(iii) To foster a caring and supportive environment where the library service to students, academic staff and researchers is paramount.

Based on the above functions of the library service, it can be clearly seen that the library in partnership with the entire university management directly contributes to the Human Capital Development program of the National development Plan III which ultimately feeds into the fourth United Nations Sustainable development goal. This is a detailed 2024 annual report highlighting the library services offered. The report covers; the library staffing, reading space, library collection, E-resources & periodicals, Library ICT services, Research support, challenges and way forward.

4.2 MUST Library Staffing

Mbarara University of Science and Technology is finalizing the process of harmonizing staff members following the directive of the Ministry of Public Service to harmonize all staff in the 8 public universities of Uganda. During the 88th University Council meeting which sat on 19th December 2024, a total of 7 Library Assistants and one Assistant Archivist were harmonized to a salary scale of PU7 NTNS. As a library department, we are very grateful for this gesture. This harmonization exercise coincides also with the migration of staff members from the Integrated Personnel Payroll System (IPPS) to the Human Capital Development System (HCDS). Below is Table 16 showing how MUST library staff were harmonized.

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Mbarara University of Science and Technology is finalizing the process of harmonizing staff members following the directive of the Ministry of Public Service to harmonize all staff in the 8 public universities of Uganda.

Table 16: Current Library establishment after harmonization

S/No.	Name	Old post	New post	Scale	Gender
1	Robert Stalone Buwule	University Librarian	University Librarian	PU3	Male
2	Wilson Adriko	Senior Librarian	Senior Librarian	PU5	Male
3	Agnes Nabada	Librarian II	Assistant Librarian	PU6.2	Female
4	Judith Nabukenya	Librarian II	Assistant Librarian	PU6.2	Female
5	Anitah Asasira	Librarian II	Assistant Librarian	PU6.2	Female
6	Hope Kansiime	Assistant Librarian	Library Assistant	PU7	Female
7	Judith Kobusingye	Assistant Librarian	Library Assistant	PU7	Female
8	Sylvia Keitesi	Assistant Librarian	Library Assistant	PU7	Female
9	Unity Atukunda	Assistant Librarian	Library Assistant	PU7	Female
10	Berina Kyimpaye	Library Assistant	Assistant Archivist	PU7	Female
11	Poloce Asiimwe	Library Assistant	Library Assistant	PU7	Male
12	Maria Santrina Kemihem-bo	Library Assistant	Library Assistant	PU7	Female
13	Richard Aine	Library Assistant	Library Assistant	PU7	Male
14	Martin Kijumi	Computer Technician	Assistant IT Officer	PU7	Male
15	David Ivan Waswa	Library Assistant	Library clerk	PU12	Male
16	Ben Edson Kikundi	Library Assistant	Library clerk	PU12	Male
17	Stephen Lwanga (Under investigation)	Library Assistant	Library clerk	PU12	Male
18	Annet Atugonza	Library Assistant	Library Clerk	PU12	Female
19	Benard Kabonekye	Library Assistant	Library Attendant	PU15	Male
20	Zacheaus Tigahwa	Library Assistant	Library Attendant	PU15	Male
21	Gorretti Bamukama	Office Attendant	Office Attendant	PU15	Female
22	Mary Agaba	Office Attendant	Office Attendant	PU15	Female

A petition was made to the first phase of this exercise where staff members including some from the library appealed to be harmonized according to their designation and not according to their salary scales. Management looked into this appeal and considered only those who qualified for those designations. There is however one library staff member called Mr. Ben Kikundi who was left out yet he qualified.

During the harmonization process, the library Assistants were harmonized to a salary scale of PU7 NTNS. The Statutory Instruments 2005 no. 85 of the Universities and other tertiary institutions (institutional standards) regulations further provide that the terms of employment of university library staff shall be equivalent to the terms of employment of the academic staff. Professional Library staff are expected to enjoy academic staff benefits like; continuous training, research funds, get a Non-Teaching Science salary and other benefits accessed by other academic staff. Six out of the eight harmonized library assistants qualify to be designated as academic. The MUST HR manual however categorizes such library staff as administrative mainly because MUST library staff don't teach and MUST doesn't have a Library and Information science program. An appeal was made to amend that position so that library staff who qualify be designated academic. This matter has not yet been concluded.

Mr. Stephen Lwanga has not been working for some time and is currently under investigation by the HR department. He appeared before the MUST disciplinary committee to establish whether his absence from duty is a result of sheer negligence of duty or genuine illness. This process is still ongoing.
MUST Library is composed of 22 staff members of which 12 are ladies. There is therefore a fairly good gender balance in the library department compared to other departments of the University. An analysis of the existing MUST library establishment was made in comparison to the approved MoPs MUST Library structure. Out of the 71 approved posts, only 22 posts are filled. This shows the level at which the library is severely understaffed as illustrated in Table 17 below. A number of MUST library services and sections are

being closed down due to this severe understaffing.

Table 17: MUST Library establishment

S/No	Post	Scale	Required	Filled	Vacant
1	University librarian	PU3	1	1	
2	Deputy University librarian	PU4	1		1
3	Senior Librarian	PU5	6	1	5
4	Librarian	PU6.1	6	0	6
5	Assistant Librarian	PU6.2	12	3	9
6	Library Assistant	PU7	12	7	5
7	Assistant IT Officer	PU7	1	1	0
8	Assistant Archivist	PU7	2	1	1
9	Assistant Administrative Secretary	PU7	2	0	2
10	Systems Library Clerk	PU12	2	0	2
11	Assistant Technician (IT)	PU12	5	0	5
12	Library Clerk	PU12	12	4	8
13	Book Binder	PU13	2	0	2
14	Driver	PU15	1	0	1
15	Library Attendant	PU15	6	4	2
	Total		**71**	**22**	**49**

A number of MUST Library staff are upgrading. Right from Bachelors to PhDs. I am pleased to present to you 3 library staff who attained higher qualifications in the year 2024.

Table 14: Library staff who attained higher qualifications

S/No.	Name	Qualification	Institution
1.	Agnes Nabada	Masters of information Science	Makerere University
2.	Judith Nabukenya	Masters of information Science	Kabale University
3.	Judith Kobusingye	Bachelors of Library and Information Science	Bishop Stuart University

Below are pictures taken on their respective graduation days.

Ms. Agnes Nabada   Ms. Judith Nabukenya   Ms. Judith Kobusingye

Fig. 1 Pictures of MUST library staff graduating.

4.3 Library Reading and Research Spaces

MUST library service has two branch libraries and two mini libraries. Kihumuro Campus library is the main library with a sitting capacity of 1,500 users with a floor space of 3548 square meters. It is stocked with 189 volumes of textbooks mainly for the Faculty of Applied Sciences and Technology and Faculty of Computing and Informatics. Recently relevant text books for these two Faculties were moved from the Town Campus library to Kihumuro. This library was constructed with support from the African Development Bank and was opened in February 2020.It is well equipped with decent furniture and a fairly good Ethernet. It is currently manned by 9 staff members.
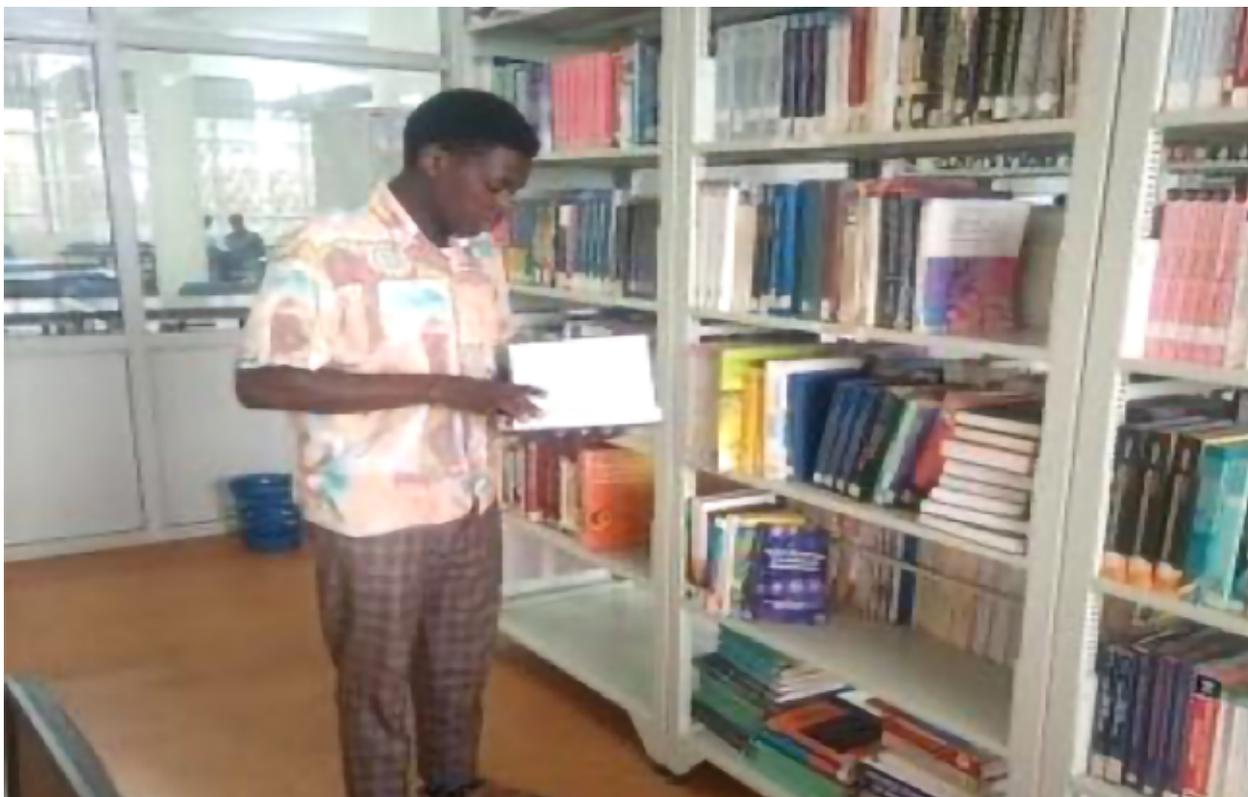

Fig. 2 Showing a student using the Kihumuro Campus library reserve section

The Town Campus library has a floor space of 1524 square meters with a sitting capacity of 700 users. There is also a book bank with a collection of basic textbooks for the taught courses. There are 10 library staff working at this branch.

The two mini libraries are located at the Faculty of interdisciplinary studies and at the Faculty of Business and Management Sciences. These mini libraries were set up to create more room for information materials and reading space for the increasing number of students and staff. They adopted a Faculty library and book banks approach. There are two library staff members working at each of the mini libraries. It should be noted there used to be a mini library at the Pharmacy department but was closed due to understaffing in the library.

4.4 Library Services

This library offers a number of services such as; Book bank, Circulation, reference, cloakroom, Reserve, discussion rooms, ICT, virtual learning spaces, periodicals and research carrel services. Below is a brief description of the different library sections and the library services offered there in 2024.

4.4.1   Circulation Section
The circulation section has the following Functions and Services:
(i)   Registration of Library users
(ii)   Issuing borrowing cards
(iii) Lending and Receiving books.
(iv) Book reservation

(v)   Current awareness (CA)
(vi) User education
(vii) Information/Help desk
(viii)   Suggestion Box
(ix) Selective Dissemination of Information (SDI)
(x) Inter – Library Loans (ILL)

4.4.2 The Book Bank Section

This is a section where books are lent out to users for a long period of time, usually a whole semester. This section ensures that students access basic textbooks against limited library funds. Sometimes the students are asked to share these resources where the need arises.

4.4.3   Short Loan Section

This section has collections of books, which are in high demand and are lent out for a short period of time to be used within the Library. The collection consists of textbooks for undergraduate and postgraduate studies based on recommendations of the academic staff and departments.

4.4.4   Periodicals Section

The Periodicals Section is located on the ground floor at Town Campus Library and on Second floor at Kihumuro Campus Library. The collection in this section includes the following:
(i)   Newsletters
(ii) Journals (print versions)
(iii) Magazines
(iv) Newspapers
(v)   Reports
(vi) Abstracts and indexes

Periodical literature is not loaned-out in most cases; it is read within the Library. However, it can be lent out for at least two days if a user shows a need.

4.4.5   Reference Section

The MUST Library Reference Section and Information services mainly focus on developing and maintaining an up-to-date, relevant and readily accessible reference collection. The section endeavors to meet the general information needs of the Library clientele, notably students and Faculty members.

4.4.6 Mini/Faculty Libraries and Book Banks

To create more room for information materials and reading space for the increasing number of students and staff, the library adopted the Faculty libraries and book banks approach. However, due to the need to free staff for operationalization of Kihumuro campus library, some mini libraries were closed. Only the Faculty of Interdisciplinary studies (Mini Library) and the Faculty of Business and Management Science (Mini Library & Book bank) remained operational. These libraries are manned by one library staff each. In case of any emergency, they are always forced to close the libraries and ultimately compromise the MUST library service. After consultation, it is being proposed that a larger space be identified where these two mini libraries can be merged and housed there together with

Fig. 3 Library Staff members at the MUST Town Campus Library circulation desk

Fig. 4 Periodical reading space at Town Campus Library

the library staff members so that one empowered library can effectively serve the two faculties.

4.4.7 Discussion rooms

These discussion rooms are located on the first floor of Kihumuro Campus Library. Students are allowed to have discussions within those spaces and at a minimal noise. A student presents his or her identity card to the librarian at the circulation desk in order to be issued the key for the discussion room. According to a report made by people issuing the keys, 546 students were able to use the discussion rooms while 113 students wanted to use discussion rooms but could not because rooms were not available. Below is a table showing the usage of the discussion room in 2024.

Table 18: Usage of discussion rooms

Month	Program	Times Booked	Month	Program	Times Booked
February	EEE MEI PEEM CVE	04 06 10 5	August	EEE BME PEEM CVE BCS	22 16 21 06 7
March	PEEM EEE CVE BCE MIE BME	03 08 03 04 06 08	September	BSE CVE BCS BIT PEM EEE	09 24 07 06 13 10
April	EEE PEEM BME CVE EEE MEI PEEM	10 06 05 08 12 06 11	October	BCS CVE BSE BIT	13 06 05 05
May	MMSC EEE BCE MIE BME	08 9 6 13 05	November	BSE BIT BCS PEEM CEEE MEI BCE MIE BME CVE	16 28 14 06 06 12 06 11 09 06
June	PEEM EEE BCE	07 09 04	December	BSE CVE BCS BIT PEM EEE	09 24 07 07 09 06
TOTAL					**546**

From the table above, PEEM and EEE students used the discussion rooms highly, BIT and BCS students least used the rooms in 2024. The demand for these spaces increases especially towards exam time.

Fig 5. MUST Students patronizing the library discussion rooms

4.4.8 Virtual learning section

This is one of the key sections in the library providing ample space for readers. It is located on the 2nd floor of Kihumuro Campus Library, well equipped with tables, chairs and a Wi-Fi connection. It is a section reserved for people with personal laptops. This section has supported readers with reading space especially when some library spaces at Kihumuro were temporarily turned into lecture

spaces.

4.4.9 Special collection

The library special collection section is meant to house critical and rare library reading materials such as special reports, conference proceedings and MUST special documents. The section is found on the 2nd floor of Kihumuro Campus library. It is currently being used as a lecture room. When FCI finally goes to its home, the library wishes to equip this space with the required furniture and staff to work in the section.   The library receives quite a number of dissertations and research reports from both MUST DRGT and other institutions like BOU, UBOS, MoFPED among others, but all this information is kept in sacks as there is no furniture to store them.

4.4.10 Computer lab section

The section is located on the 2nd floor at Kihumuro Campus Library and on the ground floor at Town Campus Library. The Kihumuro Campus lab is equipped with 33 computers, all connected to the internet except one computer which is malfunctioning. We are privileged to have got a donation of 25 computers from the Bank of Uganda in March 2024. These 25 computers were donated to FCI and are now housed in the library. The total computers in this lab should have been 35 computers however one computer went missing and another was vandalized during one lecture. The library reported this case to police and halted conducting lectures in this lab. Further still an order to procure and install cameras in this lab to strengthen its security was made. This procurement is still ongoing.

Fig 6. Students patronizing the library virtual learning section

Fig. 7 Showing students using the Town Campus and Kihumuro Campus library computer labs

Table 19: Kihumuro Library Computer Laboratory Usage Statistics 2024

Months	Gender		Lab Usage
	Male	Female	
January			
February	92	10	102
March	123	20	143
April	120	14	134
May	12	8	20
June	16	9	25
July			
August	92	34	126
September	105	26	131
October	93	22	115
November	101	25	126
December	41	11	52
Sub. Total	795	179	974
Total	**974 users used the computer laboratory.**		

According to records 179 females 795 males used the computer lab, therefore, 974 (nine hundred seventy four students) used the computer lab in the year 2024. It's observed that males use the computer laboratory more than the females.

4.4.10 Library Research carrels

They are 16 research carrels found on the 2nd floor of Kihumuro Campus Library, strictly used by researchers and postgraduate students. These services are offered at no cost with a limit of four months renewal. This is done to minimize one overstaying with the key and maximize equal service sharing. These spaces are well furnished with chairs, tables and are connected to the internet. A user approaches the Assistant librarian for the service, he / she presents an Identity card to be given a copy of the key for the room. In the year 2024 forty six (46) post graduate students and researchers used research Carrels as shown in the table below.

Table 20: Research Carrel user statistics.

Level of study	Faculty	Course	Male	Female	Total
PhD	Medicine	Pharmacology	2	1	3
		Public Health	2	2	4
		Toxicology	1	0	1
	Science	Biology	4	1	5
		Physics	0	2	2
	Business Management	Finance	1	0	1
Masters	Medicine	Surgery	2	0	2
		Nursing	5	3	8
		Emergency Medicine	2	2	4
		Obstetrics and Gynecology	2	0	2
		Ophthalmology	1	0	1
	Applied sciences	Biomedical	5	4	9
Researchers		Agriculture	3	1	4
		Total	**30**	**16**	**46**

Below are pictures of some of the researchers patronizing the MUST Library research carrels.in 2024

Fig 8. Postgraduate students in MUST Library research carrels

4.5 Library Collection

The library has increasingly been building its collection. The collection caters for the different disciplines taught at the University which include; Medicine, Pharmacy, Humanities, Business, Education, Pure and applied sciences, Engineering, Computing, informatics and Agriculture. By the end of 2022 the library had a total of 120,338 textbooks. In March 2023 the library received a new consignment of 2,761 textbooks thus increasing the total number of textbooks in the library to 123,099. The Financial year 2023/24 MUST Library managed to procure 156 textbooks and this now raised the current library textbook collection to 123,255. Below is a summary of the total number of text books procured distributed per Faculty during the FY of 2023/24.

Fig.9 Some of the hardcopy books procured by MUST Library in 2024

Table 21: Text books procured by MUST Library in FY 2023/2024

S/No.	Faculty	No. of textbooks procured
1	Faculty of Applied Science and Technology	45
2	Faculty of Computing and Informatics	22
3	Faculty of Science	18
4	Faculty of Medicine	30
5	Faculty of Business and Management Science	26
6	Faculty of Interdisciplinary Studies	15
	Total	**156**

4.5.1 MUST Library books to student ratio

The National Council of Higher Education recommends a book to student's ratio of 1:40 (NCHE. 2014). MUST library books to students have however been reduced for the last academic years from 1:30 to currently 1:25 as illustrated in Table 8 below. This has been mainly due to the increasing number of student enrolment which does not correspond with the available book budget. The budget cuts were even much severe in 2024.

Table 22: Book ratio from the recent years

S/No.	Academic Year	Total student enrolment	No. of Library books	Book Ratio
1	2021/2022	4066	120,338	1:30
2	2022/2023	4687	122,855	1:26
3	2023/2024	4954	123,255	1:25

As indicated from the table above, the student book ratio has been progressively reducing mainly because of the library budget cuts. Below is the table showing the MUST Library book budget for the recent years.

Table 23: MUST Book budget for the recent years

S/No.	Financial Year	Amount	Total No. of books purchased
1	2024/2025	44,463,383	
2	2023/2024	52,809,230	156
3	2022/2023	54,356,712	244
4	2021/2022	52,657,813	237
5	2020/2021	63,215,937	286

4.5.2 Online Public Access Catalog

The library collection is accessed through an On-line Public Access Catalogue (OPAC) commonly known as KOHA library management system. This system is supposed to provide a platform for Online Public Access to the library's available books (both physical and electronic). It also manages the book circulation function of the library to track borrowing and returning of books by Staff and Students. Throughout the year, this service has been on and off mainly because of the old and overloaded server that keeps crashing. The link to the MUST OPAC is library.must.ac.ug. This link is currently not working owing to the reasons mentioned above. Actually the MUST OPAC is temporarily hosted at Kabale University. The computing services unit recently procured a new server, it is therefore hoped that this development will salvage the situation.

4.5.3 Institutional Repository

Mbarara University of Science and Technology continues to actively engage in innovation, research and publication. The library has a platform called the institutional repository that collects all research outputs of academic staff and graduate students of MUST. This collection has been steadily growing from 2607 by the close of 2023 to now 3311 items. These items include dissertations and thesis, research articles, books, book chapters and conference proceedings. The Leading Faculty with the highest number of research publications is the Faculty of Medicine. They grew from 1662 last year to 2081 followed by the Faculty of Science which grew from 400 to 501 items. Below is a table showing how the different Faculties and institutes are contributing to the total number of items in the repository.

Table 24: Number of items uploaded in the IR per Faculty

S/No	Faculty/ Institute	No. of items
1	Faculty of medicine	2081
2	Faculty of Science	504
3	Faculty of interdisciplinary studies	193
4	Faculty of computing and informatics	132
5	Institute of Tropical Forests	123
6	Central Administration	107
7	Faculty of Business and management Science	96
8	Faculty of Applied Science and Technology	53
9	Maternal newborn and child health Institute	22
	Total	**3311**

The top three MUST researchers with the highest number of research publications as per the MUST IR statistics are Dr. Francis Bajunirwe with 149 items, followed by Ass. Prof. Joseph Ngonzi with 136 items and Dr. Conrad Muzoora with 130 items in the repository. All of them are from the Faculty of Medicine one of them being the Dean. The institutional repository is customized to run on Dspace open-source software accessible at ir.must.ac.ug. This platform archives and manages all research publications on and about MUST. The main aim is to build a collection of all research outputs of the University, thus increasing the access, use and visibility of MUST research output.

Fig. 10 Library Staff uploading research publications in the MUST Institutional Repository

It is worth noting that there are quite a number of MUST thesis and dissertations that have not yet been uploaded onto the IR. To do this MUST need to procure heavy duty scanners to digitize these dissertations and also hire temporary or permanent library staff to execute this exercise. Proquest approached MUST Library with a desire to sign an MoU and start harvesting and publicizing MUST dissertations on the Proquest platforms. We could not proceed with this engagement as the number of dissertations in print form is far much bigger than the ones available online.

4.5.4 Access to e-Resources and other non-book materials

The library also provides other types of information resources apart from text books. MUST library subscribes to the Consortium of Uganda University Libraries (CUUL) through which the university can access an assorted number of e-resources databases. MUST through CUUL currently subscribes to four e-resources databases which are; Ebscohost, Emerald, Taylor & Francis and EIFL. Below is a table showing a summary of the current library collection at MUST library by the close of 2024.

Table 25: MUST Library collection

Resource type	Number
Reference Books	2,800
Text Books	123,255
Journals (Databases)	4 (Plus 69 open source databases)
Research reports/Dissertations	636
Others Books EBooks	1727

The library also offers access to many other open access resources like Elsevier, research for life databases (HINARI, AGORA, OARE, ARDI, and GOAL) and IEEE. The library subscribes to electronic information resources such as; e- databases of scholarly journals, eBooks, among others. All these resources cover varying subject disciplines. MUST library draws its strength in terms of electronic information resources from being a member of CUUL, where negotiations for low-cost access to electronic information resources is done.

The Faculty of Medicine in conjunction with other development partners subscribed to Uptodate. This is a database with mainly e-resources for the health based disciplines. This understanding was however extended by one more year which is FY 2024/25. MUST is expected to start paying to access this database starting with FY 2025/26.This e-collection contains approximately 60,000+ electronic books, journals, and databases from leading publishers around the world that are available for several purchasing models and subscriptions.

In addition to accessing these resources, the library registers users on the MyLoft platform for off campus access to library resources and other subscribed online resources. MyLOFT is an acronym meaning My Library on Finger Tips. Two hundred forty two (242) and Two thousand six hundred and seven (2607) library users were registered on MyLoft and UpToDate platforms respectively. For the period January to July 2024, there were 42 users from Mbarara University of Science and Technology who patronized MyLoft and in total they had 349 sessions where they downloaded 884 items including both PDF and HTML files.

Below is a table showing MUST usage of e-resources from January to July 2024.

Table 26: Summary of MUST e-resources usage

S/No	Database	No. of Downloads (PDFs and HTMLs)			
		Jan-March 24	April – June 24	July 2024	Total
1	Taylor and Francis	2109	2426	458	4993
2	Ebscohost	292	425	25	742
3	Emerald	236	201	71	508
	Total	**2637**	**3052**	**554**	**6243**

The library has attempted to conduct information literacy programs for both staff and students so as to increase the usage of the e-resources. These efforts are however curtailed by the difficulties in accessing training labs and the poor internet or Wifi.

4.6 Collaborations, partnerships Research trainings
Through the year 2024, the university library has partnered with a number of research and professional organizations so as to forge a way of improving its library service both internally and externally. A number of Library staff have also been facilitated both internally and externally to attend a number of continuous professional development on behalf of the library.

4.6.1 Internal training
The library organized internal training for library staff from 22nd to 23rd January 2024. Library staff were refreshed in a number of skills like Koha, Dspace, book processing among others.

Fig. 13 MUST Library staff internal training

The library internal trainings cater for the library staff and users. From time to time the library orients its users on its library services. At the beginning of the first semester of academic year 2024/25, the orientation of first year students was successfully conducted on both campuses.

Fig. 14 Library staff conducting user orientation for MUST first year students 2024/25

Members of library staff together with interns utilized the second semester break between June and August 2024 to enter data in the Integrated Library Management System(ILMS) and they did a very impressive job.

4.6.2 External training

Fig. 15 Library staff and interns entering data in the ILMS

The MUST Library organized an information literacy program for the students of the Uganda Institute of Allied Health and Management Sciences (UIAHMS) at Mulago. UIAHMS is an affiliate to MUST. This training took place on Friday 12th April 2024 at Mulago. The information literacy program introduced the students to the library tool MyLOFT and referencing using Zotero. MyLoFT was demanded by the UIAHMS to enable them access the library's e-resources remotely.

Fig. 16. UIAHMS students undergoing an information literacy session

4.7 The Consortium of Uganda University Libraries (CUUL)

MUST Library is a paid up member of the Consortium of Uganda University Libraries (CUUL). As a member, MUST Library has enjoyed a number of trainings organized by CUUL. At the 3rd CUUL Annual Research Dissemination conference, two library staff members represented MUST the conference. These were Ms. Agnes Nabada and Mr. Wilson Adriko. For the first time, MUST library staff didn't only participate as spectators but they co-authored a paper and shared knowledge at the conference. This CUUL conference was held on 10th and 11th of October, 2024 at Makerere University. This engagement increased the visibility of MUST library and the university at large. Later, this paper is expected to be published in a reputable journal.

Fig 17. Ms. Agnes Nabada presenting a paper at the 3rd Annual CUUL Conference while Mr. Wilson Adriko waits for his turn.

4.8 Uganda Library and Information Association (ULIA)

One of MUST Library staff called Ms. Judith Nabukenya was elected as a general Secretary of the Uganda Library and Information Association (ULIA) Executive committee. These elections took place during the ULIA AGM that took place on 15th November 2024 at MUBS. Their term of office will run for four years from 2024 to 2028. Having a MUST Library staff on the ULIA executive set a very big platform for MUST library staff to influence and advance pertinent library issues at both national and regional level. ULIA is a body that brings together all Library and Information professionals and it is responsible for advocating for the rights of LIS professionals.

ULIA organized a two day Continuous Professional training program from 13th to 14th November at MUBS. The training covered a number of topics like library automation, open access, open science and digitization. Ms. Hope Kansiime represented MUST Library at this engagement. They were later hosted for a dinner at Hotel Africana on the 15th after the AGM.

Fig. 19 Ms. Hope Kansiime with the Principal of MUBS and the ULIA President Emeritus receiving a certificate after the ULIA training at MUBs

Fig. 18 Ms. Judith Nabukenya with other ULIA Executive Committee members

There were other external training and special events MUST Library staff attended during the year. Below is a table summarizing them.

Table 27: External special events and professional engagements

No	MUST Library staff	Type of meeting	Venue	Date	Organizer
1	Agnes Nabadda	CUUL AGM	MUBS IDB Building	19/1/2024	CUUL
2	Robert S. Buwule	Data management training	Busitema University	27th-31st May 2024	Datacite
3	Poloce Asiimwe	E-resources training	Kyambogo University Library	27th-28th June 2024	CUUL
	David Wasswa				

4.9 International collaborations

A team from Hasselt University in Belgium conducted a mini Research Data Management (RDM) workshop at Kihumuro Library board room. The workshop was attended by selected researchers and graduate students of MUST. This workshop took place on 5th June 2024. The Facilitators of this workshop were Dr. SadiaVancauewnbergh, the Director of Research, Library and internationalization and Mr. Marc Goovaerts the head librarian at Hasselt University. The training mainly entailed the FAIR principles of RDM which require researchers to make their research data Findable, Accessible, Interoperable and Reusable.

On the sides of the RDM workshop, the team from Hasselt University in Belgium conducted planning meetings with MUST Library. The meetings were in preparation for the RDM Kwanza project. MUST Library in conjunction with Hasselt University, Makerere University and other universities in Tanzania and South Africa won a grant with VLIR-OUS to run an 18 month International Training Program (ITP). This ITP will train 16 RDM stewards from Uganda and Tanzania. Among the 16 trainees Mr. Wilson Adriko was selected to attend on behalf of MUST. The training is slated to start in the last week of February 2025. It will be hybrid training with both online and face to face sessions.

Fig.16 Mini RDM workshop at Kihumuro Library board room

4.10 Library committee

The MUST Library committee had last held its meetings in 2022. Owing to the effects of the COVID-19 pandemic and the overlapping semesters, it was not possible to conduct meetings and even their term of office later expired. I am happy to report that on 3rd July 2024 it was reconstituted to serve for another four years. Below is the membership of the current MUST library committee.

Table 28: Membership of the current MUST Library Committee

S/no	Name	Representation
	Dr. Perez Mujuni (Chairperson)	FoBAMs
2.	Dr. Savino Ayesiga	FoM
3.	Mr. Rogers Mwavu	FCI
4.	Dr. Pricila Muheki	FoS
5.	Eng. Viyan Kusiima	FAST
6.	Dr. Speciouza Twinamatsiko	FIS
7.	Dr. Dickson Kalungi	AR
8.	Mr. Francis Ndyaguma	Finance Department
9.	Mr. Amos Baryashaba	Computing Services
10.	Eng. Patrick Mujunansi	Estates and Works
11	Hon. Daisy Kankiriho Arinda	Students Guild
12.	Dr. Robert Stalone Buwule (Secretary)	Library
	Secretariat	
13	Mr. Wilson Adriko	Town Campus Library
14	Ms. Agnes Nabada	Kihumuro Campus Library
15	Ms. Hope Kansiime	Mini Libraries

This committee held its maiden meeting on 19th September 2024 at the Kihumuro campus library board room and among the issues discussed were the Library collection development policy and the Library report. There was also a proposal to add representatives from the Directorate of Research and Graduate Training on the committee.

4.12 Proposed Way Forward for the Future

Here below are the proposals on how to mitigate the challenges highlighted above.

(i)   Creation of a dedicated website or sub domain for the library with link to the University website.

(ii)   Lobby for solar power system for the libraries on both campuses

(iii)   Increase the internet bandwidth to enable faster and easier access to the e-resources the library makes subscriptions to.

(iv)   Connect Kihumuro Library to a standby generator at FAST to ensure a stable power supply.

(v)   Install surveillance cameras to reduce theft of library resources and patrons' property

(vi)   Purchase more computers to equip the computer labs.

(vii)   Improve on the ICT infrastructure so as enable the library conduct more library user training for both students and staff

(viii) There is a need to procure new computers to replace those that have become obsolete and increase the numbers to cater for the increasing number of library users.

(ix)   Students to submit soft copies of their thesis and dissertations. to solve the problem of inadequate space

(x)   Procure more book shelves for Town Campus to ensure that all books are properly shelved.

(xi)   Identify a larger space and merge the mini libraries at FOBAMS and FIS

(xii)   Design coats or uniforms for library staff for easy identification

(xiii) Pay library staff working in the evening shift at Kihumuro a risk allowance to enable them to find alternative means of transport and be able to open the library up to 10:00 pm.

(xiv)   To recruit more library staff in the library to fill the gaps and alleviate the thin library staff working force.

(xv)   To provide risk allowance for selected Kihumuro library staff to enable them to travel late in the night and close the library at the official closing time.

(xvi)   Engage with the office of the University Secretary to warn the private cleaning service providers to improve.

(xvii) Work with the Faculty Deans to encourage staff and PG students to create google and Turnitin accounts to manage their publications and in turn increase visibility of the individual researchers and the institution at large

(xviii) The university should always issue IDs as soon as students report for studies to avoid inconveniences in registration of new library users

(xix)   Adopt an electronic clock in system to control late coming and absenteeism

4.13 Conclusion

The year 2024 was such an eventful year with both highs and lows. The library managed to achieve some of its intended goals albeit with a number of challenges. It is hoped that the university management will look into some of these challenges and chart a way forward on how to improve the library experience of the academic staff, students and researchers.

5. ACADEMIC REGISTRAR'S DEPARTMENT

5.1 Introduction

This report outlines the roles and responsibilities of the Academic Registrar Department, work done through the year 2024, challenges, and future plans. In this report we specify the roles and responsibilities of the office, staffing levels, students' statistics, ongoing activities and services, facilities, budget issues and challenges.

5.2 Roles and Responsibilities of the Office of the Academic Registrar

The Office of the Academic Registrar operates in accordance with the Universities and Other Tertiary Institutions Act (2001). Its key roles and responsibilities include, the administration and organisation of all academic matters including admission, undergraduate studies, postgraduate studies, examinations, research and publication (UOTIA, Sec 34 (3). In particular the department is responsible for admissions, enrollment and registration, teaching schedules, examination management and results, graduation and convocation.

5.2.1 Specific Roles and Responsibilities include

a) **Member of Top Management**
(i) Attend and participate in Top Management meetings.
(ii) Implement resolutions from Top Management.

b) **Secretarial Services to Senate and its Committees**
(i) Schedule Senate meetings and prepare agendas.
(ii) Send meeting invitations and reminders on time.
(iii) Supervise recording, proofreading, and proper storage of minutes.
(iv) Follow up on action points from meetings.

c) **Admissions of Students**
(i) Share admission schedules with stakeholders in advance.
(ii) Prepare and distribute digital and hard copy branded admission documents.
(iii) Process applications promptly and maintain proper records.
(iv) Compile shortlists with input from faculty.
(v) Attend the Public University Joint Admissions Committee (PUJAC) meetings
(vi) Organize completion and mature age exams.
(vii) Communicate admission outcomes to applicants.

d) **Registration of Students**
(i) Plan and oversee registration activities.
(ii) Conduct orientation for new students.
(iii) Maintain lists and statistics of enrolled and registered students

e) **Issuance of SMART Identity Cards (ID)**
(i) Ensure timely printing and distribution of student SMART ID cards.

f) **Management of Student Records**
(i) Manage the Student Information Management System
(ii) Manage the student files and archives

g) **Accreditation of Academic Programs**
(i) Collaborate with faculty to ensure all programmes offered are accredited.
(ii) Standardize programme codes and align curriculum content with teaching.

h) **Timetabling**
(i) Maintain and up-to-date programme data manager
(ii) Coordinate the preparation of teaching, mid-semester, and end-semester timetables.
(iii) Ensure timetables include only approved courses.
(iv) Publish timetables at least a month in advance.

i) **Examination of Students**
(i) Issue examination cards to eligible students.
(ii) Oversee examination processes, including Examination Monitoring and attendance.

j) **Management of Examination Results**
(i) Communicate dates for results processing and meetings.
(ii) Publish results to students after Senate approval
(iii) Follow up on missing marks and train faculty on result management.
(iv) Confirm marks and provide testimonials and partial transcripts for students.
(v) Prepare and issue academic transcripts and certificates to graduates

k) **Graduation of Students**
(i) Chair Graduation Committee
(ii) Organize preparatory meetings and communicate graduation details.
(iii) Procurement of graduation materials
(iv) Oversee well-organized graduation ceremonies.

l) Convocation Activities
(i)   Serve as the secretariat for convocation events.

m) Career Visits to Schools
(i)   Schedule and organize annual career visits to schools.

n) Alumni engagement
(i)   Conduct tracer studies to guide the institution in decision making and programme review
(ii)   Track alumni

o) Budgeting, Work Plans, and Procurement Plans
(i)   Initiate and coordinate the budgeting process

with stakeholder input.

p) Election of Deans and Heads
(i)   Plan and communicate schedules for elections of deans and faculty heads.

q) Vetting of Academic Staff for promotion
(i)   Coordinate with Department and Faculty to nominate internal and external vetters

r) Supervising registrars across the university's faculties.
(i)   s. Representing the university in academic fora and engagements with external bodies.

5.3 Staffing Levels

Position	Number	Female	Male	Gap
Academic Registrar	1	1	-	-
Deputy Academic Registrar (AR Dept)	1	-	-	1
Deputy Academic Registrar (DRGT)	1	1	-	-
Principal Assistant Academic Registrar (AR Dept)	3	-	2	1
Principal Assistant Academic Registrar (DRGT)	1	-	-	1
Senior Assistant Academic Registrar (AR Dept)	3	1	1	1
Assistant Academic Registrar (AR Dept)	3	1	-	2
Assistant Academic Registrar (DRGT)	3	-	-	3
Assistant Academic Registrars (Faculties)	10	4	1	5
Administrative Secretary	2	1	-	1
Assistant Information Technology Officer (ITO)	3	1	1	1
Records Assistant	3	1	-	2
Receptionist	1	-	-	1
Driver	1	-	1	-
Office Attendant	2	2	-	-
Total	**38**	**13**	**6**	**19**

Numbers include Registrars assigned to DRGT and Faculties

5.4 Secretarial Services to Senate and its Committees

The AR office offered secretarial services to the following committees which sat for meetings as follows

Committee	Number of Sittings
Senate	7
Admissions Committee	5
Examination Committee	5
Examination Irregularities Committee	2
Quality Assurance Committee	3
Graduation Committee	3
Convocation Executive Committee	2

5.5 Accreditation Status

In 2024, the university had a total of 85 programmes including: three (3) certificate programmes, there are (3) Diplomas, 26 Bachelors and 53 Postgraduates (PGDs, Masters and PhDs)

Three (3) new programmes were approved by the University Council and submitted to National Council for Higher Education (NCHE) for accreditation

Two (2) new fellowships were approved by the University Council and submitted to the Uganda Medical and Dental Practitioners Council (UDMPC) for accreditation.

One (1) short course was approved by the Council and is to be offered to all teaching staff.

Eight (8) programmes were phased out.

Below is the summary and detailed list of programmes:

Summary of MUST Programmes

1	Number of accredited programmes	9
2	Number of programmes submitted for re-accreditation	15
3	Number of programmes not re-accredited	1
	Total No. of programmes	85
4	Number of new programmes submitted to NCHE for accreditation	3
5	Number of new fellowships submitted to UMDPC for accreditation	2
6	Short course approved by Council	1
7	Number of programs Phased out	8

5.5.1 List of accredited Programmes

Faculty of Medicine

a) Diploma Programmes
(i) Advanced Diploma in Child and Adolescent Mental Health

b) b. Bachelors Programmes
(i) Bachelor of Medicine and Bachelor of Surgery
(ii) Bachelor of Pharmacy
(iii) Bachelor of Nursing Science (Direct)
(iv) Bachelor of Nursing Science – Completion (MUST)
(v) Bachelor of Nursing Science – Completion (JSNM)
(vi) Bachelor of Science in Pharmaceutical Science
(vii) Bachelor of Medical Laboratory Science (MLS)
(viii) Bachelor of Medical Laboratory Science (MLC)

c) Postgraduate Programmes
(i) Master of Medicine in Paediatrics and Child Health
(ii) Masters of Medicine in Obstetrics and Gynaecology
(iii) Master of Medicine in Anaesthesiology and Critical Care
(iv) Master of Medicine in Community Practice and Family Medicine
(v) Master of Medicine in Dermatology
(vi) Master of Medicine in Pathology
(vii) Master of Medicine in Emergency Medicine
(viii) Master of Medical Laboratory Science
(ix) Master of Nursing Science
(x) Master of Science in Medical Microbiology
(xi) Master of Science in Pharmacology
(xii) Master of Science in Biochemistry
(xiii) Master of Science in Pharmaceutical Analysis

Faculty of Business and Management Science

a) Bachelors Programmes
(i) Bachelor of Business Administration
(ii) Bachelor of Science in Accounting & Finance
(iii) Bachelor of Science in Procurement & Supply Chain Management
(iv) Bachelor of Science in Economics

b) Postgraduate Programmes
(i) Master of Business Administration
(ii) Doctor of Philosophy in Business Administration

Faculty of Interdisciplinary Studies

a) Bachelors Programmes
(i) Bachelor of Science in Gender & Applied Women Health
(ii) Bachelor of Science in Planning & Community Development
(iii) Bachelor of Science in Agriculture and Livelihoods

b)   Postgraduate Programmes
(i)   Post Graduate Diploma in Criminology
(ii)   Master of Arts in Peace and Conflict Studies
(iii) Doctor of Philosophy in Development Studies

Faculty of Computing and Informatics
a)   Bachelors Programmes
(i)   Bachelor of Science Computer Science
(ii)   Bachelor of Information Technology
(iii) Bachelor of Science in Software Engineering

b)   Postgraduate Programmes
(i)   Postgraduate Diploma in Information Systems
(ii)   Postgraduate Diploma in Health
       Information Technology
(iii) Master of Science in Information Systems
(iv)   Master of Science in Health
       Information Technology
(v)   Doctor of Philosophy in Computing by Research

Faculty of Applied Sciences & Technology
a)   Bachelors Programmes
(i)   Bachelor of Biomedical Engineering
(ii)   Bachelor of Petroleum Engineering and
       Environmental Management
(iii) Bachelor of Science in Mechanical and
       Industrial Engineering
(iv)   Bachelor of Science in Civil Engineering

b)   Postgraduate Programmes
(i)   Master of Science in Biomedical Engineering
(ii)   Doctor of Philosophy in Biomedical Engineering

Faculty of Science
a)   Certificate Programmes
(i)   Higher Education Certificate – Chemistry
       and Mathematics
(ii)   Higher Education Certificate – Physics
       and Mathematics
(iii) Higher Education Certificate – Chemistry
       and Biology

b)   Diploma Programmes
(i)   Diploma in Science Laboratory Technology

c)   Bachelors Programmes
(i)   Bachelor of Science with Education

d)   Postgraduate Programmes
(i)   Master of Education in Educational Psychology
(ii)   Master of Education in Educational
       Administration and Planning
(iii) Master of Education in Curriculum Instruction
       and Media Studies
(iv)   Master of Science in Biology (Natural
       Resources, Ecology, Conservation
       and Management)
(v)   Master of Science in Biology (Entomology, Pest
       and Vector Biology)
(vi)   Master of Science in Biology (Microbiology
       and Parasitology)
(vii) Master of Science in Chemistry
(viii)   Master of Science in Physics
(ix)   Master of Science in Mathematics
(x)   Doctor of Philosophy in Mathematics
(xi)   Doctor of Philosophy in Educational
       Administration and Planning
(xii) Doctor of Philosophy in Psychology
(xiii)   Doctor of Philosophy in Curriculum and
       Media Studies
(xiv)   Doctor of Philosophy in Biology
(xv)   Doctor of Philosophy in Chemistry
(xvi)   Doctor of Philosophy in Physics

5.5.2 List of programmes submitted to NCHE for re-accreditation

Faculty of Medicine
a) Bachelors Programmes
(i) Bachelor of Science in Physiotherapy (Direct)
(ii) Bachelor of Science in Physiotherapy (Completion)

b) Postgraduate Programmes
(i) Masters of Medicine in Internal Medicine
(ii) Master of Medicine in General Surgery
(iii) Master of Medicine in Otolaryngology
(iv) Master of Medicine in Ophthalmology
(v) Master of Medicine in Psychiatry
(vi) Master of Public Health (MPH)
(vii) Master of Pharmacy (Clinical Pharmacy)
(viii) Master of Science in Anatomy
(ix) Master of Science in Physiology
(x) Master of Medicine Radiology
(xi) Master of Science in Pharmacognosy and Natural Medicine Science
(xii) Doctor of Philosophy (Medicine)

Faculty of Applied Sciences & Technology
a) Bachelors Programmes
(i) Bachelor of Engineering in Electrical and Electronic Engineering

5.5.4 List of programmes that are not re-accredited

Faculty of Medicine
a) Diploma Programmes
(i) Diploma in Emergency Medicine for Emergency Care practitioners

5.5.5 Programmes approved by Council and submitted to NCHE

Faculty of Medicine
a) Postgraduate Programmes
(i) Master of Medicine in Neurosurgery

Faculty of Applied Sciences & Technology
b) Postgraduate Programmes
(i) Master of Science in Mechanical Engineering
(ii) Doctor of Philosophy in Mechanical Engineering

5.5.6 Fellowships approved by Council and submitted to UMDPC

Faculty of Medicine
(i) Fellowship in Urogynaecology
(ii) Fellowship in Emergency UltraSound

5.5.7 Short course approved by Council
(i) Higher Education Certificate in Transformative Pedagogy

5.5.8 List of programmes phased out in 2024

Faculty of Medicine
c) Diploma Programmes
(i) Diploma in Community HIV/AIDS Care and Management

d) Postgraduate Programmes
(i) Master of Medicine in Plastic & Reconstructive Surgery

Faculty of Interdisciplinary Studies
a) Postgraduate Programmes
(i) Postgraduate Diploma in Development Studies
(ii) Master of Arts in Development Studies
(iii) Master of Arts in Planning and Governance

Faculty of Computing and Informatics
a) Postgraduate Programmes
(i) Postgraduate Diploma in Business Informatics
(ii) Master of Business Informatics

Faculty of Applied Sciences & Technology
a) Bachelors Programmes
(i) Bachelor of science in Computer Engineering

5.6 Admissions Statistics 2024/2025

The Admissions Committee is a Committee of the University Senate that recommends students for admission. In academic 2024/2025 the university admitted students to both undergraduate and postgraduate programmes and MUST being a public university continues to participate in the public university joint admissions committee meetings held at Makerere University every year. The 2024/2025 statistics are as follows:

The statistics are as follows:

Category	Applications	Admitted
Undergraduate	6833	3804
Postgraduate	1280	817
Total	8113	4637

Breakdown per Faculty

Programme	Applications	Admitted
Undergraduate statistics		
Faculty of Applied Sciences and Technology	1172	487
Faculty of Business and Management Sciences (note: the high number of admitted versus applications is due to 2nd and 3rd choice applicants)	678	813
Faculty of Computing and Informatics	621	597
Faculty of Interdisciplinary Studies	243	287
Faculty of Medicine	2594	901
Faculty of Science	1525	719
Total of Undergraduate applicants per faculty	6833	3804
Postgraduate statistics		
Faculty of Applied Sciences and Technology	44	20
Faculty of Business and Management Sciences	106	99
Faculty of Computing and Informatics	106	97
Faculty of Interdisciplinary studies	61	52
Faculty of Medicine	556	290
Faculty of Science	407	275
Total of Postgraduate applicants per faculty	1280	833
Total of both Undergraduate and Postgraduate studies	**8113**	**4637**

(i) Admission Trends from 2018/2019 to 2024/2025
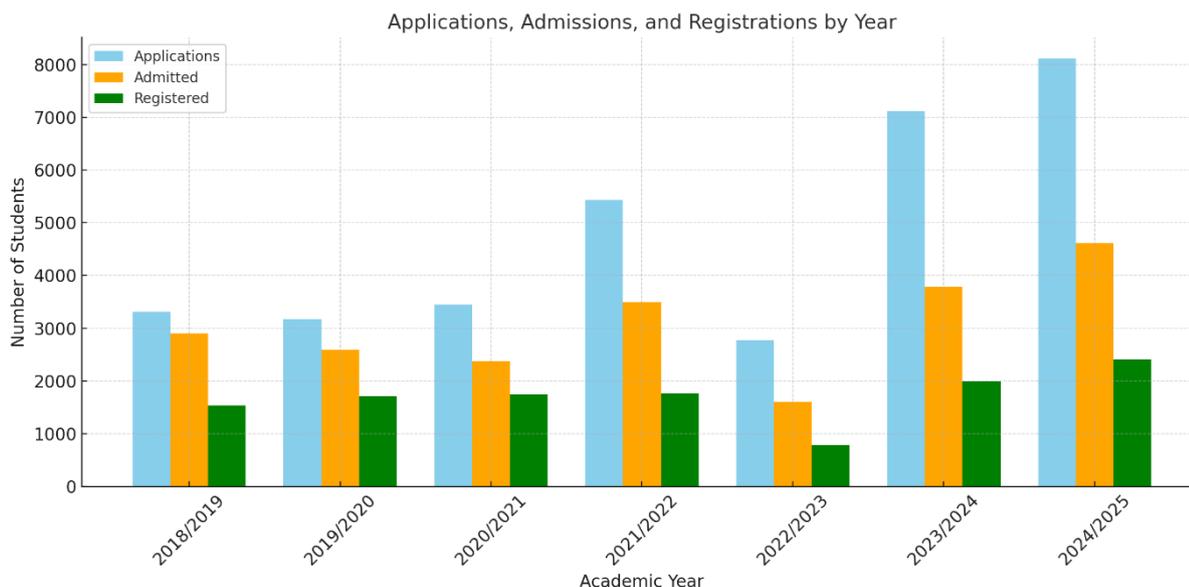
The bar chart shows the number of applications, admissions, and registration by academic year. 2024/2025 recorded the highest numbers of applications, admissions and registration.

5.7 Registration Statistics 2024/2025

Faculty	Numbers
Faculty of Applied Science and Technology	829
Faculty of Business and Management Science	1025
Faculty of Computing and Informatics	836
Faculty of Interdisciplinary Studies	349
Faculty of Science	941
Faculty of Medicine	1804
Uganda Allied Health and Management Institute - Affiliated	230
Jinja School of Nursing and Midwifery - Affiliated	211
Total	**6225**

(ii) Statistics according to Year of Study

Year One	2619
Year Two	1969
Year Three	891
Year Four	629
Year Five	117
Total	**6225**

(iii) Statistics by Level

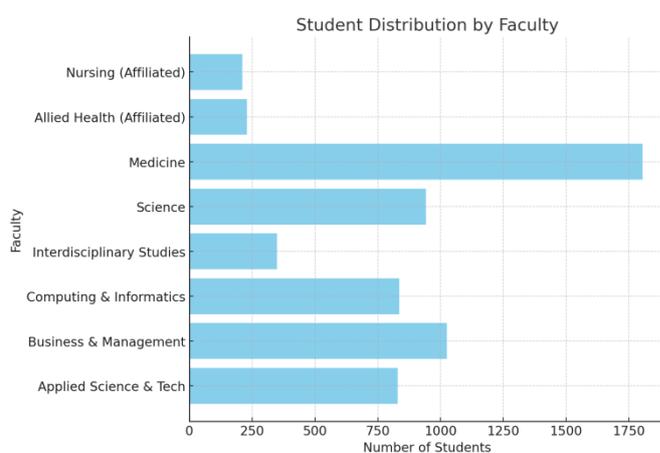|	
Undergraduate	5251
Postgraduate	974
Total	**6225**

(iv) Statistics by Sponsorship

Government Sponsored	674
Others (Self sponsored and those sponsored by other organizations)	5551
Total	**6225**

(v) Statistics by Gender

Female	2195
Male	4030
Total	**6225**

Student Distribution by Faculty

Student Distribution by Year of Study

Student Distribution by Level

Student Distribution by Gender
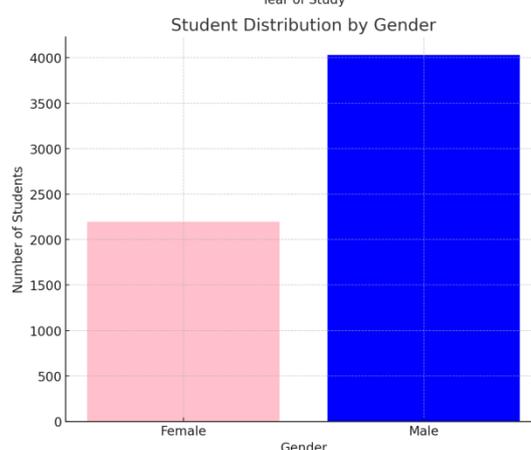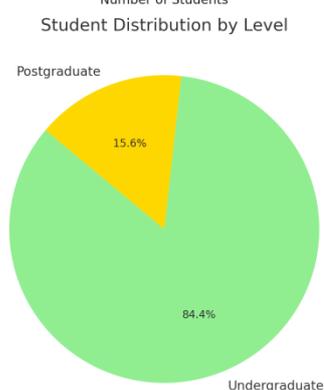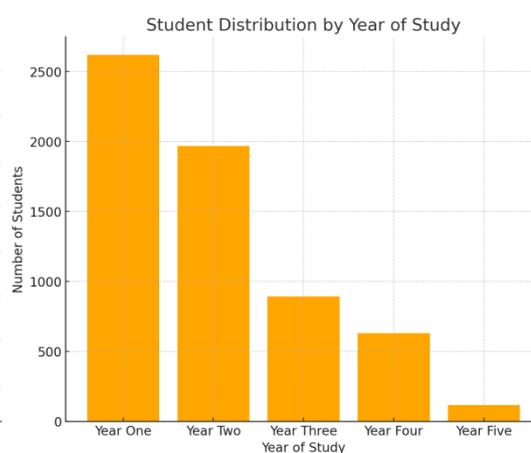
What do the registration statistics tell us?

The registration statistics for the academic year 2024/2025 highlight some trends and insights about MUST in 2024:

(i) Faculty Distribution: The Faculty of Medicin e has the highest number of students (1,804), reflecting a significant interest in healthcare professions. In contrast, the Faculty of Interdisciplinary Studies has the lowest enrollment (349), indicating a need for increased outreach and program diversification. It could also indicate a need for more investment in this area, management and governance support.

(ii) Year of Study: The majority of students (42.1%) are in their first year, suggesting that the university reputation is trusted thus more applications each year which are translating into registration.

(iii) Academic Levels: Undergraduate programs account for the vast majority (84.3%) of enrollments, while postgraduate programs represent 15.7%. This distribution may indicate a need for increased investment

in postgraduate education to attract more advanced learners.

(iv) Sponsorship: The overwhelming majority (89.2%) of students are self-sponsored or funded by other organizations, with only 10.8% receiving government sponsorship. This shows that as much as MUST is a public university, the majority of its students are private.

(v) Gender Representation: There is a notable gender disparity, with males (64.7%) significantly outnumbering females (35.3%). This suggests that targeted efforts may be needed to encourage female enrollment, particularly in traditionally male-dominated faculties.

(vi) Overall, the statistics point to strong enrollment numbers but also reveal opportunities for growth in areas such as postgraduate studies, gender equity, and retention across academic years. Addressing these aspects can help enhance MUST's inclusivity and academic offerings.

5.8 Issuance of Identity Cards (ID)

Students received the SMART identity card. The challenge is the cost of producing a SMART ID. The ID material is costly together with the printer and printer ribbons.

5.9 Management of Student Records

The AR department maintains records of prospective students, current students and graduates. These records are maintained in an Information Management System and in hard copy form in the records room.

5.10 Timetabling

The department successfully published the teaching, and end-semester timetables a month before the actual activity as per policy hence giving time to faculty and students to prepare adequately. Due to time constraints the Senate deferred mid-semester examinations so that faculty could have time to cover the curriculum.

5.11 Examination Management

Examinations for semester one and two were conducted over a period of two weeks respectively. The University instituted an Examination Monitoring team to help with examination monitoring to ensure only eligible students sit examinations and to prevent examination malpractice. We still grapple with funds for data to scan and verify examination cards and the number of monitors is still low.

5.12 Examination Results of Students 2024/2025

The department published students results on time, a week before students reported for their next semesters. This is a commitment that the department has to the students and stakeholders. Students also continue to receive testimonials and partial transcripts as and when they request for them. Students also access their results from their students' portals.

5.13 Graduation Statistics 2024

Two graduation ceremonies were held in one calendar year 2024 but in different financial years. The 30th Graduation Ceremony was held on February 24, 2024 and the 31st Graduation ceremony was held on October 19, 2024.

The statistics are as follows;

30th Graduation Ceremony - February 2024

Faculty	Numbers
Undergraduates	
Faculty of Medicine	479
Faculty of Science	141
Faculty of Computing and Informatics	125
Faculty of Business and Management Science	303
Faculty of Interdisciplinary Studies	65
Faculty of Applied Sciences and Technology	151
Total Undergraduates	1264
Postgraduates	
Faculty of Medicine	130
Faculty of Science	20
Faculty of Computing and Informatics	15
Faculty of Business and Management Science	34
Faculty of Interdisciplinary Studies	7
Total Postgraduates	206
Undergraduates and Postgraduate Total	**1470**

31st Graduation Ceremony – October 2024

Undergraduates	
Faculty of Medicine	432
Faculty of Science	123
Faculty of Computing and Informatics	166
Faculty of Business and Management Science	379
Faculty of Interdisciplinary Studies	73
Faculty of Applied Sciences and Technology	215
Total	1388
Postgraduates	
Faculty of Medicine	123
Faculty of Science	22
Faculty of Computing and Informatics	32
Faculty of Business and Management Science	35
Faculty of Interdisciplinary Studies	15
Faculty of Applied Sciences and Technology	-
Total	227
Undergraduates and Postgraduate Total	**1615**

An Analysis of Graduation Figures 2024

The graduation statistics from the 30th and 31st ceremonies in 2024 provide valuable insights into the MUST's academic achievements and trends. Here is a detailed analysis:

a) Increase in Total Graduates
There was an increase of 145 graduates (9.9%) from February to October, indicating steady progress in student throughput.

b) Faculty Distribution
(i) Undergraduates:
Across both ceremonies, the Faculty of Medicine produced the highest number of undergraduates contributing 911 undergraduates underscoring a robust healthcare education program.
The Faculty of Business and Management Science also maintained strong numbers (682 in total), highlighting its popularity and strength.

(ii) Postgraduates:
The Faculty of Medicine dominated postgraduate numbers, accounting for (58.4%) across both ceremonies. This reflects the faculty's focus on advanced education and specialization.
Other faculties had relatively lower postgraduate numbers, indicating a potential need for expansion and enhanced postgraduate programs.

c) Overall Growth
There was an increase in both undergraduate (124 additional graduates) and postgraduate (21 additional graduates) numbers from the 30th to the 31st ceremony. The steady increase in postgraduate graduates (+10.2%) indicates growing interest and investment in advanced education.

d) Faculty-Specific Highlights
The Faculty of Applied Sciences and Technology saw significant growth in undergraduate graduates between the ceremonies (151 to 215), showing improved output and program effectiveness.
The Faculty of Computing and Informatics also exhibited a rise in both undergraduate (125 to 166) and postgraduate (15 to 32) graduates, reflecting the increasing demand for computing and IT-related education.

e) Implications and Recommendations
(i) Resource Allocation:
The steady increase in graduates suggests the need for ongoing investment in academic and administrative resources, including teaching staff, infrastructure, and technology.

(ii) Focus on Underrepresented Areas:
Faculties like Interdisciplinary Studies and Science could benefit from targeted strategies to attract and retain students, particularly at the postgraduate level.

(iii) Strengthening Popular Programs:
High-output faculties such as Medicine and Business should continue to receive robust support to maintain and further enhance their programs.

(iv) Technology Integration:
The growing graduate numbers, especially in technology-focused faculties, call for further integration of AI and digital tools to streamline administrative processes and enhance student experience.

Chairman Council – Dr. Warren Naamara, Vice Chairperson Ms. Sarah Nyachwo Mwaka, the outgoing Vice Chancellor Prof. Celestino Obua, the New Vice Chancellor Prof. Pauline Byakika-Kibwika and some members of Top Management and at the 31st Graduation ceremony on October 19, 2024

5.14 Convocation Activities

The Convocation made significant strides in 2024, engaging stakeholders through consultative meetings and impactful initiatives. A highlight of the year was the grand fundraising event held in February 2024 to support the construction of a new university gate. This milestone event, dubbed the "Convocation Run," brought together alumni, staff, and well-wishers in a spirited show of unity and support for institutional development.

The AR team in 2024

5. 18 Future Plans

a) Our Vision and Mission continue to guide our future plans

(i) Vision of AR Department

To be a center of excellence in providing timely student-centered services that support the vision and mission of MUST

(ii) Mission

To provide quality services in admissions, enrollment and registration, teaching and learning, examination and results, and other academic support services while complying with university polices and regulatory requirements

c) Leveraging Technology and AI:

The department plans to harness technology and artificial intelligence (AI) to streamline operations and improve efficiency. This strategy includes:

(i) Automating Repetitive Tasks:

AI will help manage heavy data traffic and automate repetitive tasks, enabling Registrars to focus on strategic responsibilities such as data analysis and advising management on trends.

(ii) Collaborating with the Incubation Unit:

The department intends to work with the university's computer services incubation unit to digitize its most repetitive tasks.

(iii) Resource Requirements:

To implement this plan, the department requires:
Five (5) laptops for the team.
Two (2) additional computers to support daily operations.

d) Training and Benchmarking:

(i) Training Initiatives:

With the recruitment and reassignment of Faculty Administrators to Registrar roles, a series of training sessions will be conducted in 2025 to orient the new team members.

(ii) Benchmarking Best Practices:

The department plans to benchmark against regional universities, funds permitting, to adopt best practices and improve operational efficiency. These plans aim to enhance the department's capacity to deliver on its mandate while adapting to the demands of a modern, technology-driven academic environment.

6. FACULTY OF MEDICINE

6.1 Introduction

The year 2024 in the Faculty of Medicine (FoM), Mbarara University of Science and Technology, has been characterized by individual and collective successes, pride, and deliberative, planned work, followed by continued efforts to face the enormous challenges brought about by lack of enough funds. We celebrate the winning of several internationally funded grants by members of staff in the Faculty, re-accreditation of many of our curricula, personal and professional development of many of our faculty, and continuous success of our graduates in the world of work. However, Senate's approval to create new units from the existing Faculty of Medicine is still yet to be implemented.

In this report, we share the achievements and successes of our Faculty whose continued development is largely funded by the government of Uganda, and augmented by local and international partners.

6.1.1 Our Vision

To be recognized as a centre of excellence in health sciences education, research and community service.

6.1.2 Our Mission

To train health-care providers with best research and community-based activities in order to reduce mortality and morbidity.

6.1.3 Faculty Philosophy

Community based education research and services, and competency-based curriculum for training health professionals.

6.1.4 Key strategic objectives

(i)   To produce quality and relevant health professionals, and pharmaceutical sciences graduates.
(ii) To provide human resources for health care and pharmaceutical industries within the region.
(iii) To conduct research that benefits society and disseminate the findings.
(iv) To improve the knowledge and skills of practicing health professionals.

6.1.5 Faculty and Departmental mandates

The Faculty's strategic objectives are achieved through teamwork. Led by the Dean who is the Chairperson of the Faculty Board, the Faculty continuously reviews policy to enhance achievement of its objectives. The departments develop their respective strategic and operational plans, which feed into the Faculty Strategic Plan.

6.1.6 Departments and academic programs

The Faculty has 24 Departments and 32 academic programs offering training leading to Bachelors, Masters and PhD degrees.

The current academic programs include:

a) Undergraduate programs

(i) Bachelor of Medicine and Bachelor of Surgery

(ii) Bachelor of Pharmacy

(iii) Bachelor of Nursing Science (Direct and Completion)

(iv) Bachelor of Medical Laboratory Science (Direct and Completion)

(v) Bachelor of Physiotherapy (Direct and Completion)

(vi) Bachelor of Pharmaceutical Sciences

(vii) Advanced Diploma in Child and Adolescent Mental Health

b) Postgraduate programs

Masters

(i) Master of Medical Laboratory Science

(ii) Master of Medicine in Anaesthesia and Critical Care

(iii) Master of Medicine in Emergency Medicine

(iv) Master of Medicine in Family Medicine

(v) Master of Medicine in General Surgery

(vi) Master of Medicine in Internal Medicine

(vii) Master of Medicine in Neurosurgery

(viii) Master of Medicine in Obstetrics and Gynecology

(ix) Master of Medicine in Ophthalmology

(x) Master of Medicine in Otolaryngology (Ear, Nose and throat)

(xi) Master of Medicine in Pediatrics and Child Health

(xii) Master of Medicine in Pathology

(xiii) Master of Medicine in Psychiatry

(xiv) Master of Medicine in Radiology

(xv) Master of Nursing Science in Critical Care Nursing

(xvi) Master of Nursing Science in Mental Health Nursing

(xvii) Master of Nursing Science in Midwifery

(xviii) Master of Nursing Science in Pediatric Nursing

(xix) Master of Pharmacy in Clinical Pharmacy

(xx) Master of Public Health

(xxi) Master of Public Health (Research Ethics)

(xxii) Master of Science in Biochemistry

(xxiii) Master of Science in Medical Microbiology

(xxiv) Master of Science in Pharmaceutical Analysis

(xxv) Master of Science in Pharmacognosy and Natural Medicine Science

(xxvi) Master of Science in Pharmacology

(xxvii) Master of Science in Physiology

(ii) Doctoral programs

(i) PhD in the Faculty of Medicine

(iii) Fellowship programs

(i) Fellowship in Emergency Medicine

(ii) Fellowship in Urogynaecology

A team of surgeons working on one of the patients during the camp

Camp forepersons Dr. Michael Margolis (left) and Dr. Musa Kayondo (right)

6.1.7 Outreach Programs

In line with the Faculty's long-standing vision and philosophy with regard to community-based services, the Faculty of Medicine undertook several initiatives to address various health challenges in the communities, thus empowering the communities to meet the national and international health care targets.

Fistula camps by the department of Obstetrics and Gynaecology (Urogynecology) at Mbarara Regional Referral Hospital (MRRH) and Lira Regional Referral Hospital from 4th to 7th March, 2024 and 25th to 31st AUGUST 2024 respectively.

For the last 15 years, the Department of Obstetrics and Gynaecology at Mbarara University of Science and Technology has held Urogynecology camps annually at Mbarara Regional Referral Hospital (MRRH) and in other regions of Uganda, thus bringing specialized care to the many mothers who need it.

In 2024, the Department of Obstetrics and Gynecology at Mbarara University of Science and Technology and Mbarara Regional Referral Hospital (MRRH) led by Dr. Musa Kayondo joined forces with a team from Medlend in the bay area of California led by Dr. Michael Margolis for a week-long Urogynecology camp in the theatre of Mbarara Regional Referral Hospital (MRRH).

This was done from 4th to 7th, March 2024 (a week after the Essential Training in Operative Obstetrics [ETOO] course) where doctors, nurses, residents, and the Anesthesia team from MRRH worked hand in hand with the Medlend team, which is doing everything voluntarily. Together, they performed a series of life-saving operations in obstetrics, demonstrating the power of partnership and international collaboration in healthcare.

Lira Urogyn Camp
from 25th to 31st August 2024

On the 17th August 2024, a screening exercise was done at Alebtong HC IV where over 100 women were screened and 50 were given appointments to come to Lira Regional Referral for operations on the 24th August 2024.

The same team from 25th to 31st August 2024, again travelled from Mbarara and conducted a camp from Lira Regional Referral Hospital (LRRH) that was funded by the Uganda Women's Health Project on fistula and prolapse with support from the Else Kröner-Fresenius Foundation. This is in partnership with Mbarara University of Science and Technology (MUST) and Mbarara Regional Referral Hospital (MRRH).

A Symposium on Africa Life Science (AfriLSc) RNA Salon on Progress in RNA Research on 15th March 2024 under the Theme: Progress in RNA

Research: How far are we?

The Department of Biochemistry organized the mini-symposium of AFRICA Life Science (AfriLSc) RNA Salon held at MUST on 15th March 2024 in partnership with Makerere University Kampala, Liverpool John Moores University, and Kampala International University, and sponsored by RNA Society and Lexogen (The RNA Experts).

The RNA salon was designed to provide early career scientists in Africa and globally with the platform for collaboration, learning and career growth in the field of RNA research and beyond.

A group photo After the Symposium on RNA Salon

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The RNA salon was designed to provide early career scientists in Africa and globally with the platform for collaboration, learning and career growth in the field of RNA research and beyond.

6.1.8 Research and Grants

The Faculty of Medicine has been deliberate in building the capacity of all staff to be able to do quality and impactful research. Currently, the Faculty has a significant grant portfolio at MUST under the Grants Office. During the course of 2024, a number of new projects were launched including the project on optimal streptococcal vaccine trials in Africa. The inception event was held on 26th March, 2024 and the project aims to evaluate laboratory and clinical capacity to conduct vaccine trails.

6.1.9 Collaborations and Partnerships

Partnerships and collaborations form a core part of the Faculty's engagements with various stakeholders at both national and international levels. Most of these collaborations are coordinated by the various departments within the Faculty. Throughout the year, the Faculty of Medicine held several engagements both physical and virtual with our partners, including meetings, workshops, and courtesy visits.

For instance, the Department of Emergency Medicine led by Dr Prisca Kizito held a workshop with Seed Global represented by their Country Manager, Ms. Irene Aheisibwe and others on 26th March 2024 at MUST.

Workshop participants pose for a photo after the workshop hosted by HoD Emergency Medicine, Dr Prisca Kizito and attended by Seed Global Country Manager, Ms. Irene Aheisibwe

A courtesy call at the Dean's office, Faculty of Medicine

6.2 Celebration of Exemplary Service

As is the custom of the Faculty of Medicine, a ceremony to celebrate staff who retired in 2024 was held on Wednesday, 18th December 2024 in honor of their dedicated service and love for MUST. As the famous scientist, Albert Einstein, once said of life: *"Only a life lived for others is a life worthwhile,"* these staff, through their committed services to MUST, made the lives of both students and staff under their care worthwhile even in the midst of challenges.

A poster showing the FoM staff who retired in 2024.

The MUST Chief Human Resource Officer (CHRO) giving remarks during a ceremony to celebrate retirees in the FoM in April 2024.

A total of seven (7) staff retired during the year. These were:

(i) Assoc. Pro. Amos Twinamasiko, Department of Ophthalmology

(ii) Dr. Lawrence Imanirampa, Department of Pharmacy

(iii) Mr. David Asiimwe Kansiime, Office of the Dean

(iv) Mrs. Esther Beebwa, Department of Nursing

(v) Mrs. Hope Rukundo, Department of Physiology

(vi) Ms. Angella Tumuhimbise, COBERS (Department of Community Health)

(vii) Ms. Phausta Twebaze, Department of Medical Laboratory Science

The MUST Chief Human Resources Officer, addressing and thanking the 2023 retirees for the good service rendered to MUST particularly in the Faculty of Medicine during a ceremony held in April 2024 [Award recipients are: Assoc. Prof. Frederick Byarugaba (Left) and Mr. Kato Abbey (Right)]

Their services are highly appreciated. It is the Faculty's prayer that the good Lord who was with them while at MUST will stay with them during retirement, take care of their needs, and bless them with long and happy lives as they embark on their next endeavors.

Still on retirement, 2024 also saw the retirement of a number of long-standing Cuban Professors, one from each of the Departments of Physiology, Surgery, and Obstetrics and Gynecology (Prof. Yarine Leodnell Fajardo Tornes) respectively.

Accordingly, the Department of Surgery held a memorable farewell dinner complete with a cake-cutting ceremony to honor Professor Carlos Manuel Cabrera who retired on 27th June, 2024.

Department of Surgery celebrating the retirement of Prof. David Kitya and the Cuban Professor Carlos Manuel Cabrera on 27th June, 2024.

6.3 Inaugural Professorial Lecture by Prof. David Kitya

The Faculty of Medicine held an Inaugural Professorial Lecture, the first of its kind at MUST, by Professor David Kitya, a renowned neurosurgeon and one of the few such specialists in Uganda. The ceremony was presided over by Prof. Charles Tushabomwe Kazooba and took place in a packed Pharmacology Lecture Theatre on 16th April 2024.

The ceremony acknowledged Professor Kitya's remarkable career achievements under the theme: "Neurosurgical services in Uganda." The event began with a presentation by Prof. Jerome Kabakyenga, a former Dean of the Faculty of Medicine who had witnessed Prof. Kitya's rise through academia.

For his part, Prof. Kitya gave a moving lecture on the history of neurosurgery in Uganda, focusing mainly on the rise of this life-saving specialty, the people behind it—including his mentors, instructors and colleagues—and his own role in this development. He discussed the challenges they faced on the long to make neurosurgery what it is today, where it is now a fully developed MMed program at MUST, fully accredited by National Council for Higher Education (NCHE) and recognized by the Uganda Medical and Dental Practitioners Council (UMDPC).
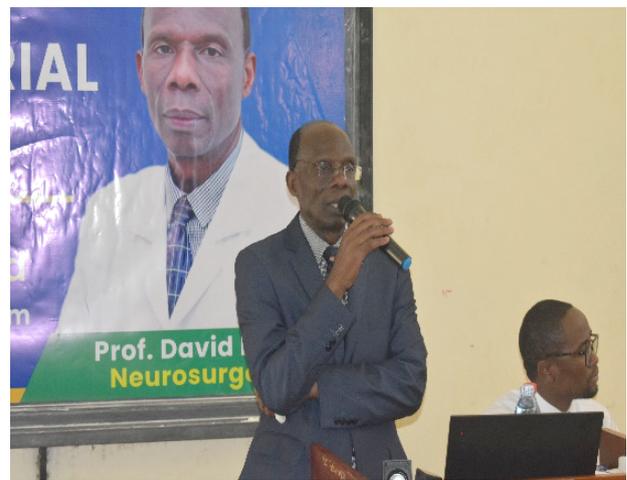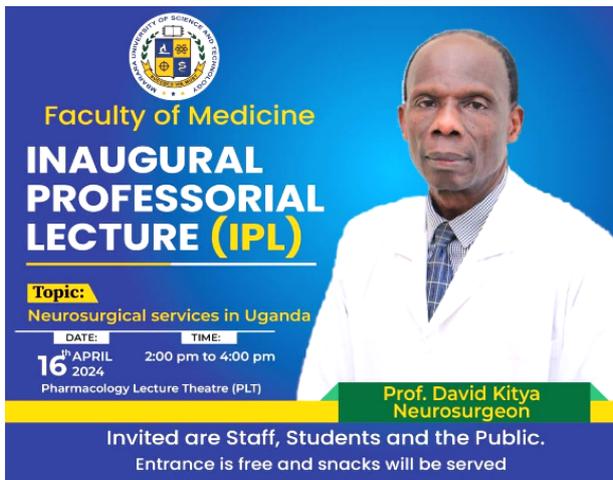
Top, Prof. Kitya presenting at his Inaugural Professorial Lecture whose function was presided over by the Deputy Vice chancellor – Finance and Administration.

A group photo after the Inaugural Professorial Lecture.

6.3.1 Guest Public Lecture by Prof. Runar Vilhjalmsson
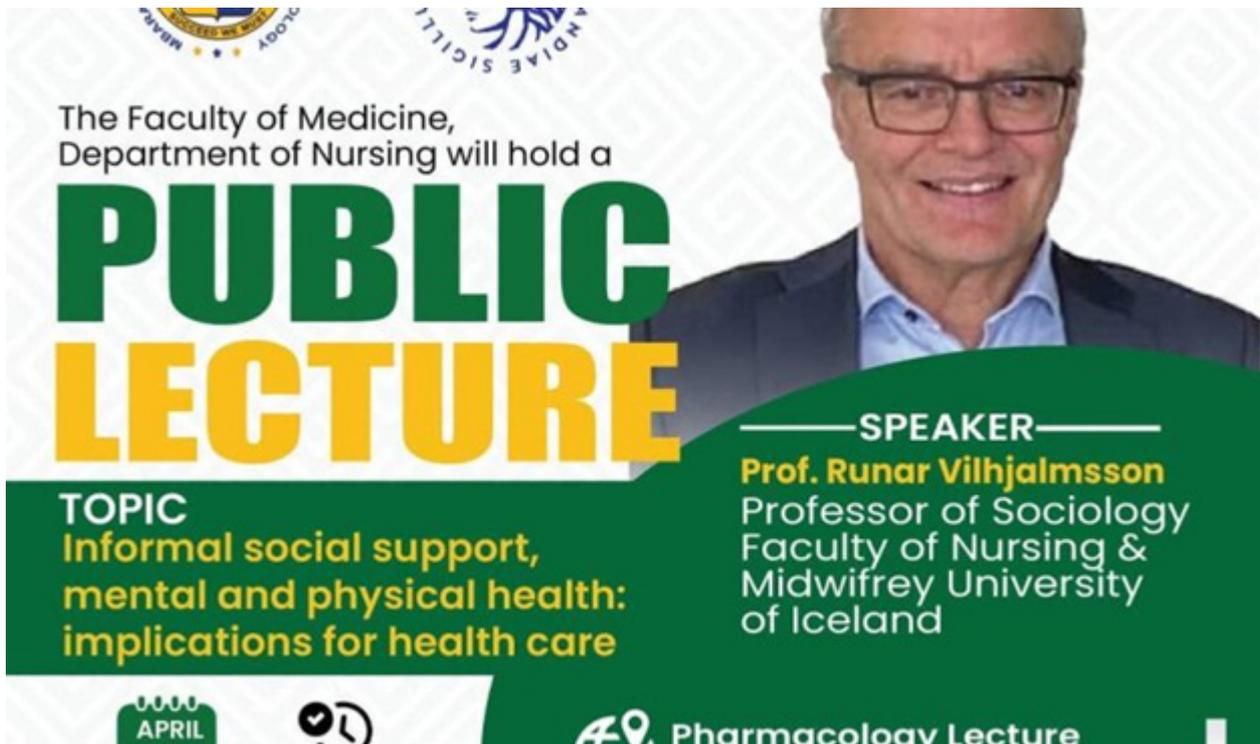
The Faculty of Medicine, Department of Nursing organized a Public Lecture on the topic *"Informal social support, mental and physical health: implications for health care"* which was held on 22nd April, 2024.

Another public lecture was given by Giselle Perez, MSN, RN, a Psychiatric Mental Health Nurse Practitioner and a Doctor of Nursing Practice (DNP) student at the University of San Diego (USD). The public lecture provided an overview of clinical presentations of common mental health conditions in the pediatric population. Giselle is part of a team of 5 Nursing professionals hosted by Holy Innocents Children's Hospital (HICH) since January 7th, 2024.

6.4 Curriculum and Program Accreditation

The Faculty of Medicine strives to offer programs that are relevant, competitive and designed to meet the ever changing and challenging demands of the job market. At the same time, these programs and their respective curriculums are regularly reviewed and reaccredited by the relevant national authorities, particularly the National Council for Higher Education (NCHE) and the relevant professional bodies such as the Uganda Medical and Dental Practitioners Council (UMDPC), The Pharmaceutical Society of Uganda (PSU), the Allied Health Professional Council (AHPC), and other specialist bodies.

During the year 2024, the Faculty of Medicine was privileged to host a joint delegation of NCHE and UMDPC from 17th to 18th July, 2024 for accreditation and/or reaccreditation of several academic programs. The activities included: Verification of academic documents, review of curriculum for programs under consideration for accreditation and facility verification.

The Dean Faculty of Medicine, Assoc. Prof. Joseph Ngonzi, making a presentation to the Joint Inspection Team from NCHE and UMDPC.

The NCHE/UMDPC Joint Inspection Team and MUST staff during and after the Site Inspection.

6.5 Specialized skills training

The Faculty of Medicine prides itself in providing our students with practical, hands-on skills which ensures that our graduates are ready to hit the ground rolling on the day of their graduation from MUST. For the medical students, the Essential Training in Operative Obstetrics (ETOO) program is a must-attend. For 2024, this training was conducted in the Essential Surgical Skills Laboratory from 26th to 28th November 2024. A total of 26 candidates (15 first year residents, 3 postgraduate midwives and 8 intern doctors) were trained.

A Group photo with both trainees and trainers After ETOO Training

Students during the ETOO training.

The training team also included 5 Senior residents (3rd and 2nd year) from the Department of Obstetrics and Gynecology at MUST. Technical support was provided by Ms. Josephine Asiimwe (Assistant Program Coordinator), Ms. Christine Mukiza and Arnold Kamugisha (Communications Representatives).

The 2nd Dr. Martin Situma Memorial Lecture

The Faculty of Medicine held the second Memorial Lecture in honor of the late Dr. Martin Situma (1975—2022) on August 1st, 2024. The event was held under the theme: "Selfless Service for Communities and Enviable Passion for Pediatric Surgery," a fitting tribute to the life and work of the esteemed pediatrician.

The memorial lecturer was sponsored by Bethany Kids where Dr. Situma served as a mentor and dedicated pediatrician before joining MUST.

Dr Situma is remembered in the Faculty of Medicine for his passion for pediatric surgery. He served with distinction as a pediatric surgeon and lecturer in the Faculty of Medicine, Mbarara University of Science and Technology MUST and as a surgeon in Mbarara Regional Referral Hospital. He was the first pediatric surgeon in the whole of South-Western Uganda and contributed to mentoring of new surgeons, including pioneering the establishment of a residency program in the pediatric surgery subspecialty unit at Mbarara Regional Referral Hospital. Dr Situma was also a member of the Faculty Research Committee (FRC) where he demonstrated his immense brilliance, special abilities and selfless contributions as a reviewer of postgraduate research proposals.

A group photo of some of the participants and speakers after the ceremony.

The Deputy Dean, Dr. Jonans Tusiimire, gave a Memorial Lecture about the late Dr. Martin Situma during the ceremony.

6.6 Clinical Orientation of 3rd Year Students

The transition from basic and biomedical sciences to clinical and applied sciences at the end of the second year of medical school is an interesting but challenging point in the career of any medical student. In recognition of this fact, the Faculty of Medicine organizes an orientation for all students making this transition every year to prepare them for the new demands of their programs, including how to handle patients, dress code and ward management.

In the year 2024, the clinical students' orientation was held on 20th August 2024 in the Pathology Lab. The programs involved were: Bachelor of Medicine and Surgery (MBChB), Bachelor of Nursing (BNS), Bachelor of Nursing completion (BNC), Bachelor of Pharmacy (PHA).

The main facilitators were representatives of Obstetrics and Gynecology, Pediatrics, Internal Medicine, Nursing, and Pharmacy.

The Deputy Dean, Dr. Jonans Tusiimire, addressing 3rd year clinical students.

Group photo of the participants

6.6.1 White Coat Ceremony

The Faculty held a White Coat Ceremony, marking the entry of the matriculating class of 2024 into the Faculty of Medicine programs on 13th November 2024 at the Pharmacology Lecture grounds.

The MUST Vice Chancellor, Prof. Pauline Byakika-Kibwika, addresses the Class of 2024.

Poster for the White Coat Ceremony

This induction ceremony helps first-year students of clinical programs to gain a sense of the programs' core values of professionalism, respect, integrity and caring.

During the ceremony, students are cloaked/dressed in their first white coats as a symbol of the trust being bestowed upon them to carry on the noble tradition of patient-centered care. Thereafter the students take their respective oaths and a pledge of allegiance to the profession, thereby deepening their sense of obligation and dedication to service.

Celebration of the World Prematurity day by the Pediatrics and Child Health Department on November 22, 2024 at the Pharmacology Lecture Theatre.

The MUST Urogyn/Fistula Program commissioned an operating Theatre Equipment by Obstetrics and Gynaecology on 9th December, 2024.

New Anesthesia Machine Boosts Surgical Care at MUST and MRRH

The MUST Urogyn/Fistula Program, through a grant from the HAL family (San Diego, USA), committed funds to increase access to urogyean surgery in the country thereby increasing surgical training to residents and Fellows. This also includes overhauling our 2 Obs/Gyn operating rooms. It's on this background that the program in conjunction with anesthesia department has procured 1 anesthesia machine (A7 with AG module), 1 isoflurane vaporizer, 1 sevoflurane vaporizer, 1 N15 patient monitor for the anesthesia machine, and 1 operation table. All these are high-tech equipment from MINDRAY valued at $54,000. These were delivered and installed on 9th December 2024.

6.7 Faculty End of Year Party

The Faculty of Medicine END OF YEAR PARTY was held on 18th December 2024 at the University Inn to celebrate the great efforts from all staff and the academic achievements made during the year. The same event was used to officially bid farewell to the staff of Faculty of Medicine who retired from the MUST service in 2024.

The ceremony was officiated by the Vice Chancellor, Prof. Pauline Byakika-Kibwika, who handed over Certificates/Plaques of Appreciation to the retirees. At the same function, the best teachers as nominated by their students were also recognised.

6.8 The 2024 COBERS Program

The Community Based Education, Research and Service (COBERS) program is at the heart of health professional training in the Faculty of Medicine at MUST, in line with our vision and philosophy. This program is a core component of all undergraduate programs offered in the Faculty of Medicine which is delivered under the Leadership and Community Placement course (LCP 4311). The course introduces the learner to: Leadership, Primary Health Care, One-health, and Systems thinking, in line with the demands of the 21st Century, considering emerging and re-emerging health problems and diseases.

The 2024 course was held from May to June, 2024. It started with a week-long online pre-placement orientation course followed by a community placement from June 15th to July 8th 2024.

During the course, the students undertook needs assessment within the communities. Each group was assigned an academic supervisor from MUST and site supervisors who were based at the placement facilities. Several community health challenges were identified and students together with the community came up with low-cost interventions in form of a project23 to address the challenges. These interventions range from mobilizing communities, health education talks, screening for illnesses, managing patients, and cleaning to improve sanitation.

Summary of participating students

Program & Year	Number of students
MBChB IV	84
Nursing Science III	35
Medical Laboratory Science III	63
Medical Laboratory Science Completion I (MUST Campus)	21
Nursing Science Completion II	28
Pharmacy II	61
Pharmaceutical Sciences I	10
Physiotherapy III	36
Total number of students Mbarara	338
Jinja campus (BNC)	61
Mulago campus (MMLC)	84
Total number of students for Jinja & Mulago	145
Grand Total 483	**483**

The students were placed in 42 placement sites across the south western region. These were:
(1) Biharwe H/C III
(2) Bugoye H/C IV Grp A
(3) Bugoye H/C IV Grp B
(4) Buhara H/C III
(5) Bukwanga H/C III
(6) Bwindi Community Hospital
(7) Bwizibwera H/C IV
(8) Bugamba H/C IV
(9) Quality Service Engari H/C
(10) Hamurwa H/C IV
(11) Ishongororo H/C IV
(12) Kabira H/C III
(13) Kamuganguzi H/C III
(14) Kataraka H/C IV
(15) Katete H/C III
(16) Kazo H/C IV
(17) Kibiito H/C IV
(18) Kinoni H/C IV
(19) Kiruhura H/C IV
(20) Kisomoro H/C III
(21) Kisoro Hospital
(22) Lwengo H/C IV
(23) Lyantonde District Hospital
(24) Mabona H/C III
(25) MCNELL Medical Centre
(26) Mitooma H/C IV
(27) Muko H/C IV
(28) Nyahuka H/C IV
(29) Nyakabande H/C III
(30) Nyamuyanja H/C IV
(31) Rubanda H/C III
(32) Rubaya H/CIV
(33) Rugazi H/C IV Grp A,
(34) Rugazi H/C IV Grp B,
(35) Ruhija H/C III
(36) Ruhira H/C III
(37) Ruhoko H/C IV
(38) Rukoki H/C IV
(39) Rukunyu H/C IV
(40) Rushere Community Hospital
(41) Rutete H/C IV
(42) Rwekubo H/C IV

7. FACULTY OF SCIENCE

7.1 Introduction

This report gives an overview of the faculty in terms of the current student and staff population, regular activities, resources available, challenges encountered, and suggestions to the University administration.

The Faculty of Science was established in July 1995, with three departments, namely: Mathematics, Physics, and Educational Foundations and Psychology. In 1998 the departments of Biology and Chemistry were started to complete the entire spectrum of basic sciences offered by the University.

Since its inception, the faculty has steadily expanded through the introduction of new programmes at pre-degree, degree, and postgraduate levels in response to the acute national demand for scientists, science teachers and laboratory technologists.

7.1.2 University Vision alignment
In line with the University vision, the Faculty of science is proposed to be a centre of academic and professional excellence, innovations and research in science and technology.

7.1.3 University Mission alignment
In line with the University mission, the Faculty trains quality professional science teachers and basic scientists, skilled in transfer and application of science and technology for inclusive development

7.1.4 Faculty Objectives
(i) To train Science teachers in response to the acute shortage of science teachers countrywide
(ii) To contribute to technical skills development at both National and international level by stimulating interests in the study of science subjects
(iii) To develop relevant human resource for re-awakening and sustaining local interest in science
(iv) To contribute to knowledge through cutting edge research projects in basic sciences

7.1.5 Academic Programs
(i) PhD
(ii) Master of Science (Biology)
(iii) Masters of Science (Chemistry)
(iv) Masters of Science (Mathematics)
(i) Masters of Science (Physics)
(ii) Masters of Education in Educational Psychology
(iii) Masters of Education in Educational Administration and Planning
(iv) Masters of Education in Curriculum and Media Studies
(v) Masters of Science in Environment and Natural Resources
(vi) Bachelor of Science with Education (BSc. Ed)
(vii) Diploma in Science Laboratory Technology (SLT)
(viii) Higher Education Access Certificate (HEAC)

7.2 Regular Activities
(i) Teaching at Postgraduate, Undergraduate, and Pre-degree levels
(ii) Supervision of projects for Post-graduate and third year Undergraduate students
(iii) Supervision of student-teachers in different schools during School Practice in June to July of every academic year
(iv) Supervision of Diploma in Science Laboratory Technology students during Industrial Training at various schools, industries, research, and health facilities in June to July of every academic year
(v) Research and publications, mainly at individual, and partnership levels
(vi) Setting, moderating and administering progressive assessments and end of semester examinations
(vii) Marking of progressive assessments for coursework and end of semester examinations scripts
(viii) Curriculum review and development
(ix) Attending seminars, workshops, and delivering presentations
(x) Writing grant proposals for collaborative research at local, national, regional and international levels
(xi) Conduct various researches at local, national, regional and international levels.

7.3 Academic and Technical / Support Staff
The number of academic and technical / support staff in the faculty is presented in Table 29 below. The details of the part-time lecturers for the different units are also indicated in the table.

Table 29: Staffing

Biology Department

Category	Gender		Total	Desired No
	Male	Female		
Professor	00	01	01	04
Associate Professor	01	00	01	06
Senior Lecturer	02	03	05	08
Lecturer	00	02	02	08
Lecturer (Part-time)	00	01	01	02
Assistant Lecturer	03	01	04	04
Laboratory Technicians	01	02	03	04
Sub-total	**07**	**10**	**17**	**34**

Chemistry Department

Category	Gender		Total	Desired No
	Male	Female		
Professor	00	00	00	04
Associate Professor	00	01	01	06
Senior Lecturer	03	00	03	08
Lecturer	01	01	02	08
Part -Time Lecturer	01	00	01	03
Assistant Lecturer	01	01	02	04
Laboratory Technician	01	00	01	04
Assistant Laboratory Technician	00	01	01	
Sub-total	**03**	**04**	**11**	**34**

Mathematics Department

Category	Gender		Total	Desired No
	Male	Female		
Professor	00	00	00	02
Associate Professor	00	00	00	04
Senior Lecturer	04	00	04	06
Lecturer (Full time)	00	03	03	08
Lecturer (Part-time)	00	01	01	02
Assistant Lecturer	02	00	02	06
Laboratory Technicians	00	00	00	02
Sub-total	**7**	**3**	**10**	**38**

Physics Department

Category	Gender		Total	Desired No
	Male	Female		
Professor	00	00	00	03
Associate Professor	01	00	01	03
Senior Lecturer	02	00	02	04
Lecturer	04	02	06	08
Assistant Lecturer	01	01	02	04
Senior Laboratory Technician	00	00	00	01
Laboratory Technician	00	00	00	01
Senior Assistant Laboratory Technician	00	00	00	01
Assistant Laboratory Technician	02	00	02	03
Assistant Administrative Secretary	00	00	00	01
Sub-total	10	03	13	29

Education Foundations and Psychology Department

Category	Gender		Total	Desired No
	Male	Female		
Professor	00	00	00	04
Associate Professor	00	00	00	04
Senior Lecturer	03	01	04	06
Lecturer	03	01	04	04
Part-Time Lecturer	00	02	02	02
Assistant Lecturer	00	01	01	04
Sub-total	06	05	11	24

Science Technology Unit (DLT & HEAC)

Category	Gender		Total	Desired No
	Male	Female		
Professor	00	00	00	03
Associate Professor	00	00	00	03
Senior Lecturer	00	01	01	06
Lecturer	00	00	00	04
Part-Time Lecturer	10	06	16	00
Assistant Lecturer	00	00	00	04
Sub-total	05	05	10	20

7.3.1 Student Population

Programme	Male	Female	Total
PhD			47
Master			184
Undergraduate			342
DLT			79
HEAC			202

7.4 Quality Assurance

The Faculty has set up measures to ensure quality of teaching and learning that include;

(i)   Set up an examination coordinating unit in the faculty and in each department to monitor the progress of the teaching and examination process.
(ii) Periodical curriculum reviews as guided by NCHE
(iii) Monthly presentation for research work
(iv) Moderation of examinations
(v)   External examination for written exams, dissertations and theses.
(vi) Inviting external examiners for PhD at the Viva Voce

7.5 Research Output

No	Research Project	Project Team	Collaborators	Funder and time frame	Ongoing Research
No	Research Project	Project Team	Collaborators	Funder and time frame	Ongoing Research
	INTERACT-Africa Project – Phase II	MUST (Dr Raphael Wangalwa), Addis Ababa University (Ethiopia), Sokoine University of Agriculture (Tanzania), InstitutFacultaire Des Sciences Agronomiques (IFA) De Yangambi (DRC) and	Moi University	European Union Commission 2024 - 2028	Mobility in Innovative Green Technologies for Climate Change Mitigation and Sustainable Bioeconomy 50 students (Ph.D. and MSc)
1	Action Towards Reducing Aquatic snail-borne Parasitic diseases (ATRAP II)	Dr. Casim Tolo Umba (PI) Prof. Grace Kagoro Dr. Viola Nyakato	Dr. Tine Huyse Royal Museum of Central Africa (RMCA)	RMCA multiannual programme 2024 – 2029	3PhDs Point-of-care monitoring of schistosomiasis parasites in Lake Albert, southwestern Uganda: optimizing the environmental DNA lamp assay". To develop an eco-friendly strategy for controlling schistosomiasis transmission in Uganda by using the P. dodecandra extract targeting the different parasitic stages of Bilharzia. "Implementation of Community-led water, sanitation and hygiene intervention to prevent and manage schistosomiasis in Kagadi district, Western Uganda 2MSc Efficiency of snail-host and vegetation removal in schistosomiasis control on water contact points in Kagadi district, Western Uganda "Community Perceptions and Attitudes towards the uptake of Locally Applied Water, Sanitation, and Hygiene (WASH) Interventions in the Control and prevention of Schistosomiasis: A Case Study of Kagadi district in Western Uganda"
2	Natural Hazards, Risks and Society in Africa: Developing Knowledge and Capacities (HARISSA II)	Prof Grace Kagoro Dr. Ronald Twongyirwe	Dr. Olivier Dewitte (Royal Museum for central Africa).	RMCA -GDG multiannual programme 2024 – 2029	1PhD The use and communication of natural hazards information from citizen science

No	Research Project	Project Team	Collaborators	Funder and time frame	Ongoing Research
3	Transforming Food Systems and Agriculture through Research in Partnership with Africa 'TSARA'	Dr Casim Tolo Umba Prof Grace Kagoro Dr. Julius Tumusiime Mr. Godfrey Begumisa	Dr Eleftheria Ntagia, PROSE, IN-RAE , France	TSARA 2024-2026	1 PhD Investigate the efficiency of electrochlorination on Schistosoma cercariae. Optimize the electrochemical design in terms of chlorine concentrations achieved, pH drop, disinfection efficiency, and energy efficiency. Examine how the water matrix, including organics, TSS, and other pathogens like E. coli and Enterococci, affects disinfection efficiency and cercariae removal. Evaluate disinfection capacity of using microbial enumeration methods for waterborne pathogens and microscopic analysis for Schistosoma cercariae.
4	University as a Facilitator for Community Based Sustainable Solutions to Demographic Challenges in South Western Uganda (UCoBS) Sub project t 2: Mechanisms for Climate Change Adaptation for Sustainable Food Production	Prof. Grace Kagoro	Prof Matthieu Kervyn Vrije Universiteit Brussel Faculty of Sciences and Bio-Engineering Sciences Department of Geography Prof. Roel Merckx Prof Maarten Everaet Prof. Hervé Vanderschuren K U Leuven University, Belgium	IUC project Initiatives 2022-2034 funded by VLIRUOUS	MUST to have improved research expertise and facilities to develop and test climate-smart and sustainable land management practices. Citizen-based digital information systems are established and support multi-actor initiatives to design climate smart agriculture and conservation practices for increased and sustainable food production of smallholder households of the SW region of Uganda. 3PhDs Impact of climate change on crop production dynamics of farming systems and vulnerabilities of smallholder farmers Predicting millet yield responses to soil nutrient supply at field scale in Southwestern Uganda Epidemiology of banana bunchy top virus (BBTV) in Uganda amidst climate Variability 2MScs The impact of rainfall variability on agriculture in SW Uganda: Detecting droughts in satellite-based rainfall and vegetation time series Characterization of the crop diversity traits and cropping systems amidst climate to inform interventions for increased crop production

No	Research Project	Project Team	Collaborators	Funder and time frame	Ongoing Research
5	DAAD in-country / in-region scholarship programme	Prof. Grace Kagoro		DAAD 2023-2028	For Master of Science in Biology (Microbiology and Parasitology) [MAP] and Master of Science in Biology (Natural Resources Ecology, Management and Conservation) (NRM)
6	Innovation for Sustainability and Societal relevance: Partnerships in evidence-based higher Education on food systems and climate change (INSSPIRE project)	Assoc. Prof. Robert Bitariho Dr. Ronald Twongyirwe	Vrije Universiteit Amsterdam University of Ljubljana (Slovenia) Rovira i Virgili University (Spain) Makerere University, Kampala South Eastern Kenya University Maseno University, Kenya	European Union (EU) 2023-2026	2 PhDs Testing the applicability of effectiveness of a holistic community-based wildlife conservation strategy in the reduction of human elephant conflict in a rural African Protected Area context. a case study of communities in and around Queen Elizabeth National Park An Assessment of the impact of land use changes on the utilization of the protected area resources and its implication on biodiversity conservation in Mgahinga Gorilla National Park, Southwestern Uganda 4Msc The effectiveness of collaborative forest management in Kasyoha-Kitomi central forest reserve, southwestern Uganda. forest regeneration in the former encroached areas of Bwindi impenetrable national park; a case study on Nkuringo buffer zone, S.W Uganda Banana crop production dynamics and climate variability adaptation strategies in Kyabugimbi sub county, Bushenyi district An assessment of the ecological and economic impacts of restored Nzuguto wetland in Rubirizi, southwestern Uganda.

No	Research Project	Project Team	Collaborators	Funder and time frame	Ongoing Research
7	Digital citizen science for community-based resilient environmental management(D_SIRE)	Prof. Grace Kagoro	Prof Matthieu Kervyn Vrije Universiteit Brussel Faculty of Sciences and Bio-Engineering Sciences Department of Geography Mr. Clovis Kabaseke Mountains of the Moon University (MMU), School of Agriculture and Environmental Sciences, Department of Agriculture	TEAM projects and South Initiatives 2019-2023 funded by VLIRUOUS	2PhDS The added value of citizen science to environmental hazard assessment and risk analysis: The case of the geo-observer network in south western Uganda Knowledge Transfer for Adoption of Effective Disaster Risk Reduction Strategies and Improved Livelihoods: Evidence from Western Uganda 3MSc Occurrence and distribution of pests and diseases in farmer communities of Kisoro and Buhweju Modelling soil loss with the use of the Revised Universal Soil Loss Equation (RUSLE) in Kigezi Region Southwestern Uganda Access to information and adoption of agroforestry as a disaster risk reduction strategy among farming communities in the Rwenzori mountain slopes
8	Natural Hazards, Risks and Society in Africa: Developing Knowledge and Capacities (HARISSA)	Prof Grace Kagoro Dr. Ronald Twongyirwe	Dr. Olivier Dewitte (Royal Museum for central Africa).	RMCA -GDG multiannual programme 2019 – 2023	1PhD "Natural hazards and their interactions under the lens of Citizen Science: a multi-hazard assessment for the South Western region of Uganda"
9	Epidemiological survey for Schistosoma hybrids and praziquantel efficacy in children in Lango sub region, Uganda	Prof Grace Kagoro (PI) Dr Rapheal Wanagalwa Mr. Ben Lukubye	-	Grants Programme 2021 Royal Society of Tropical Medicine and Hygiene (RSTMH)	Efficacy of praziquantel against S. Mansoni and S. haematobium in the Lango sub region. Explain a possible cause of the observed parasite shift from S. haematobium to S. Mansoni to inform mass drug administration in Uganda. Prevalence and intensity of hybrids among the children in the Lango sub region, introgression and the direction of introgression in Schistosoma parasites in the Lango sub region.

No	Research Project	Project Team	Collaborators	Funder and time frame	Ongoing Research
10	University as a Facilitator for Community Based Sustainable Solutions to Demographic Challenges in South Western Uganda (UCoBS) Sub project t 2: Mechanisms for Climate Change Adaptation for Sustainable Food Production	Prof. Grace Kagoro	Prof Matthieu Kervyn Vrije Universiteit Brussel Faculty of Sciences and Bio-Engineering Sciences Department of Geography	IUC project Initiatives 2022-2034 funded by VLIRUOUS	MUST to have improved research expertise and facilities to develop and test climate-smart and sustainable land management practices. Citizen-based digital information systems are established and support multi-actor initiatives to design climate smart agriculture and conservation practices for increased and sustainable food production of smallholder households of the SW region of Uganda.
11	Innovation for Sustainability and Societal relevance: Partnerships in evidence-based higher Education on food systems and climate change (INSSPIRE project)	Assoc. Prof. Robert Bitariho Dr. Ronald Twongyirwe	Vrije Universiteit Amsterdam University of Ljubljana (Slovenia) Rovira i Virgili University (Spain) Makerere University, Kampala South Eastern Kenya University Maseno University, Kenya	European Union (EU) 2023-2026	2 PhDs Testing the applicability of effectiveness of a holistic community-based wildlife conservation strategy in the reduction of human elephant conflict in a rural African Protected Area context. a case study of communities in and around Queen Elizabeth National Park An Assessment of the impact of land use changes on the utilization of the protected area resources and its implication on biodiversity conservation in Mgahinga Gorilla National Park, Southwestern Uganda 4Msc The effectiveness of collaborative forest management in Kasyoha-Kitomi central forest reserve, southwestern Uganda. forest regeneration in the former encroached areas of Bwindi impenetrable national park; a case study on Nkuringo buffer zone, S.W Uganda Banana crop production dynamics and climate variability adaptation strategies in Kyabugimbi sub county, Bushenyi district An assessment of the ecological and economic impacts of restored Nzuguto wetland in Rubirizi, southwestern Uganda.

No	Research Project	Project Team	Collaborators	Funder and time frame	Ongoing Research
12	IUC subproject 2	Dr. Justine Nakintu (Team member)	Prof Matthieu Kervyn Vrije Universiteit Brussel Faculty of Sciences and Bio-Engineering Sciences Department of Geography	VLIRUOUS 2022-2034	: Mechanisms for Climate Change Adaptation for Sustainable Food Production
13	Conservation of the Grey Crowned Crane (Balaericaregulorum)	Dr. John Bosco Nkurunungi (Team leader)	International Crane Foundation. (ICF) & African Crane Conservation Programme (ACCP)	ICF/ACCP/MUST 2024-2926	2 MScs Assessing the use of agrochemicals by farmers and identification of those that may pose threat to cranes Analysis of the impacts of agrochemicals on cranes and their habitats
14	Institute of Tropical Forest Conservation (ITFC)	Dr Dennis Babaasa	International Gorilla Conservation Programme (IGCP), Uganda Wildlife Authority (UWA) and partners	World Wildlife Fund for Nature (WWF) and others 2024-2026	Census of mountain gorilla population, other select mammals, and human activities in Bwindi-Sarambwe landscape
15			University of California, Davis, US; Gorilla Doctors	National Science Foundation (NSF) 2024-2025	Impacts of rapid landscape change and biodiversity on virus host specificity

No	Research Project	Project Team	Collaborators	Funder and time frame	Ongoing Research
16			Bwindi Mgahinga Conservation Trust (BMCT)	Bwindi Mgahinga Conservation Trust (BMCT) 2024-2025	Assessing the influence of BMCT Integrated Conservation and Development (ICD) strategy on community livelihoods and conservation attitudes in Bwindi Mgahinga Conservation Area (1994-2023)
17					MSc Feeding preferences of captive Eastern chimpanzees (Pan troglodytes schweinfurthii) at Uganda Wildlife Education Centre (UWEC): implications of wild feeds as behavioural enrichments
18	ATRAP-TSARA	Dr. Casim Tolo Umba (Director) Mr. Godfrey M Begumisa Prof. Grace Kagoro Dr. Julius Tumusiime	Dr. Eleftheria Ntagia Dr. Tine Huyse	ATRAP-TSARA 2024-2025	1 PhD research Efficacy of sequential water treatment using a constructed wetland and electrochlorination in schistosomiasis hot spot area, lake albert shores, Uganda
19	Transitional Award Professional Development (TAPROD)	Mr. Godfrey M Begumisa Mr. Albert Agaba Ms. Annet Komujuni	Ms Angela Musewa Mr. Abel W Walekhwa	AFROHUN	The Barriers, Facilitators and the Current Anthrax Outbreak Management Practices among different Stakeholders in Kashare Sub County, Mbarara District.
20	Uganda Schistosomiasis Multidisciplinary Research Centre (U-SMRC)	Dr. Casim Umba Tolo (C0-PI/ Consultant), Dr. EdridahTukahebwa (VCD), PonsianoOcama (MAK)	Prof. Alison Elliott (PI) Uganda Virus Research Institute/London School of Hygiene & Tropical Medicine, UK	National Institute of Health (NIH), (Award Number U01AI168609)2022-2026	1PhD "Biomphalaria Diversity within and between Lakes Albert and Victoria Ecosystems: Assessment of Biological and Environmental Transmission Drivers of Intestinal Schistosomiasis in Uganda"

No	Research Project	Project Team	Collaborators	Funder and time frame	Ongoing Research
21	Education Collaborative Career Fairs Support Initiative at MUST	Dr. Casim Umba Tolo (PI), Prof. Robert Tamukong and PHARMBIO-TRAC Team	Prof. Robert Tamukong and PHARM-BIOTRAC Team	The Education Collaborative, Ashesi University LBG, Accra, Ghana	"Education Collaborative Career Fairs Support Initiative at MUST for students and alumni"
22	Transforming PHARM-BIOTRAC Incubation Rubric into an Innovation Framework for Upscaling Natural Products Development in Africa	Dr. Casim Umba Tolo (PI), Jimmy Ronald Angupale, Anke Weisheit	The Education Collaborative Member Institutions	The Education Collaborative, Ashesi University LBG, Accra, Ghana	"Transforming PHARMBIO-TRAC Incubation Rubric into an Innovation Framework for Upscaling Natural Products Development in Africa"

Research Activities

Department of Physics

No	Research Project	Project Team	Collaborators	Funder and time frame	Ongoing Research
	East African Astronomical Research Network (EAARN) -Phase II	Assoc Prof Jurua	University of Ethiopia and University of Rwanda	EAARN	Asgtrophysics 2 students have been enrolled to study PhD and several MScs in Astrophysics.

7.5.1 Ongoing Research

(i) Graywater-based hydroponic farming technology, a potential option for resource-constrained urban farming communities in Mbarara city Uganda"

(ii) Assessment of the Medicinal Potential of Ferns in Combating Antimicrobial Resistance (AMFAR).

(iii) Ecological Niche Modelling of At-Risk Medicinal Plants in a Changing Climate in Uganda: A Case of WarburgiaUgandensis.

(iv) Establishing Long-Term Community Water Monitoring System for River Rwizi Catchment Using Digital and Bioblitz-Citizen Science Approaches.

(v) Conservation interventions of this highly threatened Grey crowned Cranes.

(vi) Assessing the level of Pollution of River Rwizi and its potential effects on humans and ecosystem Health.

(vii) Assessing zoonotic risk of bovine fascioliasis an its significance around Lake Mburo National Park, Southwestern Uganda

(viii) DAAD in-country /in-region scholarship program.

(ix) Action Towards Reducing Aquatic snail-borne Parasitic diseases (ATRAP).

(x) Natural Hazards, Risks and Society in Africa: Developing Knowledge and Capacities (HARISSA.

(xi) Mechanisms for Climate Change Adaptation for Sustainable Food Production.

(xii) KEA-Explore - Exploring the biodiversity and environmental status of the African Rift lakes Kivu, Edward and Albert.

(xiii) State-of-the-art molecular approaches to improve monitoring of snail-borne diseases in the Lake Albert region, Uganda (eLAMP).

(xiv)   Inventory of threatened odonates in two Selected afromontane Forests in the Albertine Rift in Western Uganda.
(xv) Exposure to Mixtures of Emerging Contaminants in the Environment - Are Communities in Uganda at Health Risk? - A Case Study of Mbarara City, (on –going) Principal Investigator: Assoc Prof. Grace Birungi.
(xvi)   Evaluation of Contaminants in Herbal Medicines Sold in Mbarara City. Principal Investigator: Dr. Christopher Adaku.
(xvii)   In 2023, the Departments of Chemistry, Biology and Computer Science partnered with Moi University and other East and Central African Universities in writing a Mobility Africa EU project. The project will bring on board MSc and PhD, and staff exchange from the region, Details of this project will soon be available.

7.6 Growth and Development

a)   Staff Capacity building
(i)   The different units in the faculty have their junior staff enrolled for PhD programs within the Faculty and other regional and international institutions
(ii)   One member of staff was promoted to the rank of Senior Lecturer.
(iii)   One technician retired and a replacement was made.
(iv)   The Department has received some lab supplies and equipment under the NIH project by Assoc. Prof. Grace Birungi.

b)   Student training
(i)   The faculty units /departments have experienced an increase in the enrollment of postgraduate students by 50%.

7.7 Collaborations / Partnerships

The faculty has established new and maintained ongoing collaborations with a number of organizations to create synergy in research and teaching for quality output, a few are mentioned below;

(i)   The department of Chemistry has collaborated with the University of San Diego under the guidance of Prof. James Bolender (Professor of Chemistry), Makerere University and Busitema University. Through these collaborations, lab samples for analysis, supervision and examination of dissertations have been executed.
(ii)   Another collaboration has been to the University of Kwazulu Natal. Through this collaboration, three PhD candidates have accessed the Chemistry laboratory at kwazulu natal and analyzed their samples in different research areas; e. g water purification, method development and natural products.

7.8 Performance on Cross-cutting issues

(i)   The Department encourages both male and females to engage in Chemistry related courses and research.
(ii)   A number of research projects have centered on environment, water purification, natural products, medicinal plants and method development.

7.9 Future Plans

The Faculty has planned a number of Activities
(i)   Staff training in Curriculum Review and Development
(ii)   Review of all Faculty of Science Curricula (PhD, Masters, Bachelors, DLT and HEAC)
(iii)   Retooling of all faculty academic staff in pedagogical Teaching Skills
(iv)   Write projects to attract funding and equip the laboratory
(v)   Increase the number of postgraduates to broaden our research agenda
(vi)   Increase the number of collaborations
(vii) Engage in community activities

8. FACULTY OF INTERDISCIPLINARY STUDIES

8.1 Introduction and Background

The Faculty of Interdisciplinary Studies (FIS) is pleased to present its activity report for the year 2024. The Faculty was established following the approval of the University Council during its 63rd meeting on October 28, 2016. It replaced the Institute of Interdisciplinary Training and Research (IITR), which had been in existence since 2013. Prior to IITR, the Faculty of Development Studies, founded in 1998, had served as the primary academic unit, evolving from the Department of Development Studies under the Faculty of Science in 1995. Initially, the department's main role was to offer a crosscutting Development Studies Service course (Political Economy) to all first-year undergraduate students at Mbarara University of Science and Technology (MUST).

FIS plays a crucial role in bridging the gap between science, technology, innovation, and community development by employing interdisciplinary approaches in both training and research. Through this approach, the Faculty strengthens MUST's capacity to transfer scientific and technological innovations for community transformation. One of its core institutional mandates is to offer a crosscutting Development Studies Service course, with a focus on Political Economy, to all undergraduate students in their first and second years. The teaching of this course has been effective, with students grouped into clusters, and lecturers integrating case studies and practical examples relevant to their fields of study. Despite the clustering, all students follow the same curriculum. The rationale for this course is grounded in the understanding that science and society must interact for meaningful development to occur. The course was introduced at MUST to ensure that science students graduate not only with technical expertise but also with a broader understanding of how scientific knowledge intersects with societal dynamics to drive transformation. The Development Studies Service course (Political Economy) is designed to cultivate graduates who can apply scientific knowledge within social contexts to foster development.

All academic programs within the Faculty align with the National Development Plan and incorporate community-based education and training approaches. The curricula are designed to be relevant and equip students with transferable skills through practical engagements. These include the Community Twinning Project for all undergraduate students and the Farm Attachment Training for students specializing in agricultural livelihoods. Additionally, the Faculty oversees the University Farm in Rukindo, which as at 28th February 2025, the farm had twenty seven (27) heads of cattle - increasing from the twenty six (26) it had in January 2025 heads of cattle. It should be noted that after boarding off the seventy-one (71) heads of cattle in August 2023, majority of animals that remained on the farm were heifers nearing puberty stage. Some conceived and will calve down in the third and fourth quarter of the FY 2024/2025. At the moment there are 6 more cows to calve.

8.1.1 FIS Vision
A center of excellence in Interdisciplinary Studies and research that promotes fundamental understanding of problems and enables communities to pragmatically cope with the changing human conditions

8.1.2 FIS Mission
To provide quality training and research that integrates methodology and practice from more than one discipline in order to holistically address community needs.

8.1.3 FIS Goal
Produce graduates and conduct interdisciplinary research geared towards innovative interventions that address multifaceted societal needs.

8.2 Departments
The Faculty is strategically organized in the following departments of which some departments host academic programs and Courses:
1) Department of Planning and Governance,
2) Department of Human Development and Relational Sciences,
3) Department of Environment and Livelihoods Support Systems,
4) Department of Community Engagement and Service Learning,

8.3 Academic Programs

The Faculty has the following programs and courses offered:
(i) DVS/Service Course to the entire university (1st& 2nd year students),
(ii) Bachelor of Science in Planning and Community Development,
(iii) Bachelor of Science in Gender and Applied Women Health,
(iv) Bachelor of Science in Agriculture and Livelihoods,
(v) Post Graduate Diploma in Criminology,
(vi) Masters of Arts in Developments Studies (Phased out)
(vii) Masters of Arts in Peace and Conflict Studies
(viii) Masters of Arts in Governance and Planning (Phased out)
(ix) PhD in Development Studies.

6.3.1 Student Enrolment

The number of students has increased in the past four years especially in the department of Environment and Livelihood and Support Systems which could be attributed to the marketing team, adverts on radios and Televisions, researches and publications done by staff among other reasons. These could have increased the visibility of the department and Faculty among parents and students

Undergraduate Enrollment

Programme	Year of Study	Female	Male	Special Needs	Total
Bachelor of Science in Planning and Community Development	BPCD I	16	20	Nil	36
	II	14	16	Nil	30
	III	00	00	Nil	No students (Covid 19)
Bachelor of Science in Gender and Women Health	BGWH I	17	00	Nil	17
	II	13	03	Nil	16
	III	00	00	Nil	No students (Covid 19)
Bachelor of Science in Agriculture and Livelihoods	BSAL I	34	57	Nil	91
	II	15	43	Nil	58
	III	00	00	Nil	No students (Covid 19)
	IV	13	31	Nil	44
Total				**Nil**	**292**

Postgraduate Enrollment					
Master of Arts in Development Studies	MADS I	08	06	Nil	14
	MADS II	04	02	Nil	06
Master of Arts in Peace and Conflict Studies	MPCS I	00	01	Nil	01
	MPCS II	03	07	Nil	10
Master of Arts in Planning and Governance	MAPG 1	00	00		00
	MAPG 1I	04	00		04
Post Graduate Diploma in Criminology	PGD.C 1	00	00		00
PhD		15	23	Nil	38
Total					63
Grand Total					**357**

8.4 Staff and Leadership Status

The leadership at the faculty is a following:

(i) Dean- Dr. Wendo Olema Mlahagwa
(ii) Deputy Dean- Dr. Cleophas Karooma-Kansiime
(iii) HoD- Planning and Governance: Dr. Tom Ogwang
(iv) HoD- Environment Livelihood and Support Systems: Dr. Ronald Twongyirwe
(v) HoD- Human Development and Relational Science: Dr. Clementia Neema Murembe
(vi) Coordinator- Graduate Studies: Dr. Tom Ogwang
(vii) Coordinator- Service Course (Development Studies). Dr. SpeciozaTwinamasiko
(viii) Assistant Academic Registrar: Ms. Betty NamusokeOkumu

Staff Members and their respective Departments

Department	Members of Staff	Highest Qualification	Title
Planning & Governance	Prof. Prof. Roberts K Muriisa	PhD	Professor (HOD)
	Dr. Cleophas Karooma	PhD	Senior Lecturer (Deputy Dean)
	Dr. Rogers Bariyo	PhD	Senior Lecturer
	Dr. Frank Ahimbisibwe	PhD	Senior Lecturer
	Dr. Tom Ogwang	PhD	Senior Lecturer
	Dr. Dorcus Achen	PhD	Assistant Lecturer
Human Development And Relational Sciences	Dr. Neema C. Murembe	PhD	Senior Lecturer (HOD)
	Dr. Viola N Nyakato	PhD	Senior Lecturer
	Dr. Nakazibwe Primrose	PhD	Lecturer
	Dr. Elizabeth Kemigisha	PhD	Lecturer
	Ms. Jackline Tumuhairwe	MPH	Assistant Lecturer
Department of Environment & Livelihoods Support Systems	Dr. Ronald Twongyirwe	PhD	Senior Lecturer (HoD)
	Dr. Muchunguzi Charles	PhD	Senior Lecturer
	Dr. Medard Twinamatsiko	PhD	Senior Lecturer
	Dr. Hannington Odongo	MSC (Planning & Development), PhD	Lecturer
	Ms. Barbara R Naggayi	MSc(Environmental Science)	Lecturer
	Mr. Peregrino Tumusingize	MSc (Animal Science)	Assistant Lecturer
	Dr. Elias Oyesigye	MSc. (Crop protection), PhD	Assistant Lecturer
	Mr. Paddy Ainebyona	Farm Mechanization	Part time Lecturer
	Mr. Ivan Jjooga	MSc (wild life health and Management)	Farm Manager/ Part time Lecturer
	Mr. Gerald Tumwine	Food Science	Part time Lecturer
Department of Community Engagement and Service Learning	Dr. Specioza Twinamasiko	PhD	Asst. Lecturer
	Ms. Tumuhimbise Immaculate	MA (DS)	Lecturer
	Dr. Prudence Kemigisha	PhD	Lecturer
	Dr. Valence Ngabo	MSc(QE), PhD (Data Science)	Assistant Lecturer
	Dr. Wendo Mlahagwa Olema	PhD	Senior Lecturer/ Dean

Summary of Academic Staff

S/No	Title	Female	Male	Total	Gaps to be filled
1	Professor	Nil	01	01	02
2	Associate professor	Nil	Nil	Nil	02
3	Senior lecturer	05	04	08	04
4	Lecturer	04	04	09	03
5	Assistant lecturer	02	04	06	04
6	Part-time lecturers	01	04	05	00
	Total	**12**	**16**	**28**	**15**

8.4. 1 Staff undertaking further Training

S/N	Name	Training level	Institution
1.	Ms. Barbara R Naggayi	PhD	MUST
2	Mr. Ivan Jjooga	PhD	Makerere

8.4.2 Research Priority areas per department

A: Planning and Governance, Human Development and Relational Sciences, Community Engagement and Service Learning

(i) Governance
(ii) Planning
(iii) Public Sector Reforms
(iv) Service Delivery
(v) Conflict Studies
(vi) Human Resource Management
(vii) Teenage and Adolescent Reproductive health
(viii) Gender
(ix) Indigenous Studies
(x) HIV/AIDS
(xi) Natural Resources Management
(xii) Land Governance and Development
(xiii) Migration and Migrant's security; Refugees, IDPS, return, and development displacements
(i) Enhancing institutional efficiency and service delivery
(i) Commercialization of agriculture with a pro-poor growth and value addition agenda
(i) Political Economy of Africa
(i) Political Economy of Uganda
(i) International Political Economy
(i) Citizenry
(i) Professionalism
(i) Globalization
(i) Entrepreneurship
(i) Human Rights,
(i) Socio cultural practices,
(i) Family relations and sexual and gender based violence.

B: Environment and Livelihoods Support Systems

■ **Food Science**
(i) Food processing and product development
(ii) Food systems analysis
(iii) Food and nutrition security

■ **Soil Science, Environmental Science and Management and Environmental Engineering**
(i) Soil and water conservation
(ii) Soil fertility and plant nutrition
(iii) Rangeland ecology and management (livestock production and management systems, antimicrobial resistance)
(iv) Waste management
(v) Water quality and treatment
(vi) Climate Change (adaptation, resilience, mitigation co-benefits)
(vii) Governance and Sustainable Cities (urban ecology)
(viii) Natural resource governance and management (benefit sharing, human-wildlife conflict, indigenous people, integrated conservation, natural resource curse debates, extractive industries – oil and gold)
(ix) Land use and land cover change (e.g. urban sprawl, deforestation, wetland erosion) and relationship with environmental degradation

■ Crop Science
(i)   Crop pest and disease surveillance and management
(ii) Plant breeding (for management of plant diseases)
(iii) Annual and perennial crops agronomy
(iv) Value addition and market studies
(v)   Aflatoxin detection and management in crop value chain, animal products and feeds
(vi) Pesticide toxicity studies

■ Extension, Farm management and Livelihoods
(i)   Smallholder Vulnerability and Resilience
(ii) Governance and Farmer Resilience
(iii) Extension Service Models and Governance
(iv) Multi-Stakeholder Platform, Farmer Values and Needs
(v)   Risk and Farm Planning
(vi) Urban farming (prospects and challenges for the urban poor livelihoods)

■ Animal science, production and marketing
(i)   Livestock production systems and environmental interactions
(ii) Livestock products handling, marketing and consumption studies
(iii) Animal nutrition and feed technologies
(iv) Livestock farm management decision–making processes and sustainability
(v)   Animal breeding and reproductive efficiency management
(vi) Animal disease investigation and management

8.5 Non Academic Staff

Non-Teaching Staff	Members of Staff	Highest Qualification	Title
	Ms. Betty Namusoke Okumu	BSES	Assistant Academic Registrar
	Mr. Turyatunga Frank	MBA	Finance Officer
	Mr. Frank Mutungi	Certificate (Accountancy)	Clerical officer
	Ms.Koburunga Enid	PGD Office Management and Secretarial Studies	Assistant Personal Secretary
	Mr. John W. Kagaba	PGD Human Resource Management	Office Attendant- Resource Centre
	Mr. Alex Kiiza Karemire	BBA-Marketing and Management	Driver
	Mr. Ronald Akampurira	Diploma in Records Management and Information Science	Office Attendant
	Kihembo Barbara	Diploma in ICT	Office Attendant

Summary of Non Academic Staff

S/No	Title	Female	Male	Total	Gaps to be filled
1	Administrative staff	02	02	04	00
2	Office attendant	01	Nil	01	01
3	Lab attendant	00	01	01	01
4	Driver	00	01	01	01
	Total	**03**	**03**	**06**	**03**

8.6 Quality Assurance Mechanism

The Faculty implements a number of quality assurance mechanism as follows:

(i) The Faculty ensures that all examinations papers are moderated by the respective departments before they are administered,

(ii) The Faculty conducts regular meetings such as academic meetings, departmental meetings and management meetings which are held with heads of departments and coordinators for different academic activities,

(iii) At the end of every academic year, the Faculty engages external examiners who are appointed by the Academic Registrar,

(iv) Class attendance lists are emphasized in the Faculty,

(v) All post graduate dissertations are externally examined and students are required to defend their thesis/dissertations during the viva voce examination,

(vi) The Faculty examination processes follow the University Examination Regulations,

(vii) Every semester, the Faculty conducts a workload analysis for every lecturer to ensure there is equity and fair distribution of tasks carried out in the semester and all the year around,

(viii) The Faculty promotes the interface between science, technology, innovation and community by undertaking interdisciplinary approaches and this raises the capacity of MUST to transfer science, technology and innovation for community development.

8.7 Growth and development of the Faculty

The Faculty is experiencing a growing research and grant profile. Members of academic staff have attracted prestigious grants and collaborations from a wide range of local and international academic institutions. Specifically, we recognize the continued support of VLIR-UOS under its support for partnerships between Universities and University Colleges in Flanders (Belgium). In addition, staff are increasingly engaged in academic writing which has resulted in a number of peer reviewed publications.

8.7.1 Management of University Farm

Since 2014, the Faculty of Interdisciplinary Studies took over the management of the University farm as a teaching facility (field laboratory) for students offering Bachelor of Science in Agricultural Livelihoods and Farm production of which in 2020 was revised and re accredited by NCHE as Bachelor of Science in Agriculture and Livelihoods. The Faculty is working towards transforming it into a modern teaching and research facility. The farm is set to enable students to acquire skills in the scientific fields of Animal science (health and production), Crop science, Soil science, Agricultural Engineering/mechanization, Farm enterprise Development and innovations management, Environmental related science (climate smart Agriculture and resilience) as well as Food science. With the support of Partners such as SNV and OWC/NAADS, the Faculty intends to transform this farm into a Modern Dairy Farm for teaching and research. The University farm operations are under direct supervision of the Department of Environment and Livelihoods Support Systems assisted by the FIS-Dean's appointed Farm committee in making major strategic and tactical decisions. The farm has two sections currently of Animal and Crop section, all headed by the Farm Manager. The Farm Manager is technically backstopped by the Animal scientist and Crop Scientists (Lecturers) at FIS, who are also members of the Farm committee.

Updates on the Farm

As of 28th February 2025, the farm had twenty-seven (27) heads of cattle, an increase from the twenty-six (26) recorded in January 2025. It is important to note that following the boarding off of seventy-one (71) heads of cattle in August 2023, the majority of the remaining animals on the farm were heifers approaching puberty. Some of these heifers have since conceived and are expected to calve in the third and fourth quarters of the FY 2024/2025.

On 27th February 2025, a pregnant heifer calved and delivered a male calf. No recent cattle deaths have been recorded, likely due to regular health checks, control of external parasites through spraying, and early disease detection.

The farm has encountered cases of cattle illnesses; however, all affected animals were treated and recovered. For instance:

(i) In **July 2024**, a brown male calf exhibited an elevated temperature of approximately 40.1°C, mild diarrhea, loss of appetite, and general body weakness. The calf was treated as per the veterinarian's recommendation and recovered.

(ii) In **August 2024**, two calves contracted theileriosis, presenting with enlarged lymph nodes, lacrimation, a mean temperature of 41°C, and inappetence (loss of appetite). They were successfully treated and recovered.

(iii) In **September 2024**, one cow developed nodules on its forelimbs, which were severely swollen. The condition was treated, and the cow made a full recovery.

(iv) In **October 2024**, a brown male calf was diagnosed with East Coast Fever, characterized by enlarged superficial lymph nodes, diarrhea, and a mean temperature of 39.1°C, along with inappetence. The calf was treated and recovered.

(v) In **February 2025**, a pregnant heifer calved but experienced a retained placenta, which was manually removed from the uterus.

(vi) These cases highlight the diligence of the farm supervisor in ensuring timely intervention and effective health management of the cattle.

Ongoing Farm Activities

Routine farm activities continue, including:

(i) Improvement of natural pastures.

(ii) Repair of dilapidated farm structures, such as the broken fence and a cracked biodigester.

(iii) Regular spraying of cattle to reduce tick infestation and improve overall herd health.

8.7.2 Teaching and learning sites for BSAL

The department Environment and Livelihoods Support Systems acquired land between University Inn and Staff Quarters from the Top management. This land is currently being used by students to set up demonstrational gardens/plots for learning. Land has been prepared with the aid of the tractor that was donated to the faculty by the MAAIF. Mbarara University Farm (MUST Farm), Rukindo has been fully integrated into teaching through acting as a field laboratory for Agriculture students' practicals.

During farm attachments/ Practicum in third year, Agriculture students go out on several private and organized farms which enable them to acquire on-farm training in different enterprises such as dairy and beef management, aquaculture production, crop production and management among others.

The Faculty had established students' demonstration plots for crop science training and had developed the University Farm improvement strategic plan which was approved by the University Council. Agricultural training, demonstration and research is a very important component in answering complex and interrelated production and productivity questions faced by the majority of farmers in Uganda. In recognition of this need, the Department of Environment and livelihood support systems, has an integrated training component that looks at producing practical oriented agricultural professionals to address farmers' challenges.

Animal section

The Animal section exists at Rukindo farm site where the total herd size is 27 heads of cattle, both dairy crossbreeds (F1-A. I products).

Farm strategic intervention on Pasture establishment and management at the Rukindo component in the University Farm feasibility plan (2022-2027) was implemented. FIS was allowed by the University Top Management and Risk and Audit committee of the University Council to implement this intervention after presenting to them the farm feasibility plan. Currently, six acres of pastures were planted, grown and harvested at the farm with support from the University and other partners (Climate Dairy Smart Project and SNV-TIDE 2). We were also able to improve on the quality and quantity of natural pastures on the farm and students' gardens were prepared for use in their experiments.

Presently the farm land in Rukindo has been fenced off (paddocking) and security houses are in place (though semi-permanent). With the support of fencing materials and labor from SNV we fenced eight paddocks, and we also installed a water pump.

The faculty has received a tractor from the MAAIF under the project Improving and use of Agricultural machinery for Agricultural Mechanization in Uganda, and the tractor has and is being used effectively on the farm. Plate: Artificial insemination service products:

Pasture demonstration plots establishment

Pasture demonstration plots were previously established at mile-6 and later at Rukindo farm site. These plots were established by students guided by the lecturer and Farm manager and the pasture species include Sugar Napier, Brachiaria Mulato, Chloris gayana, Lablab and Centrosema. These were harvested and Napier used in silage making demonstration to students at Rukindo farm site and currently the Napier plot exists at Rukindo.

Plates below highlighting these activities.

Plate...: The Napier grass established by students at Kihumuro farm site and later harvested for planting at Rukindo and for silage making practical sessions

Student learning

Since February 2017 when the pioneer BSAL class started learning a course of Farm Animal production and management in their 2nd, semester, students have been accessing the University farm for practical learning sessions with Animal science lecture for hands-on in Livestock management practices including castration, dehorning, hoof trimming, ear tagging, restraint and casting of animals. Also, hands-on Animal health and disease diagnostics, treatment of animals, Acaricide mixing and dipping of animals, Animal nutrition and Animal breeding including heat detection, artificial insemination procedure and pregnancy diagnosis have been conducted. Picture highlighting these activities where students were involved are as below;

Plate: ....Practical demonstration for students in casting animals and castration

Plate:.... A student practically learning the procedure of inseminating a cow.

The students of BSAL organized an agricultural exhibition and the Guest of Honour was the Minister of Agriculture, Animal Industry and Fisheries, Honourable Frank Tumwebaze. During his speech, the Minister pledged, on behalf of his Ministry, to donate a tractor to the Faculty to aid in the ploughing of the land for agriculture purposes for the students. This tractor was later granted as it was explained in sections above

In addition, he also promised that his ministry would assist in the setting of an agricultural laboratory for the students by providing some needed equipment. He left it to the University to come up with a write-up which it would present to the Ministry for the processes to begin.

8.8 Innovations in the Faculty

The Faculty of Interdisciplinary Studies under the department of Environment and Livelihoods Support Systems organized an Agricultural Exhibition at MUST that took place on 8th December 2023 under the theme Agro biotechnology innovations, a key pathway towards achieving youth employability in Uganda. The Agricultural innovations hub received funding from MUST-Centre for Innovation and Technology Transfer (CITT). The chief guest was Hon. Minister Monica Musenero- Minister of Science, technology and Innovation. The innovation focuses on enhancing skills through agro-biotechnology to respond to the labor market demands. The exhibition day was attended by over 250 youths, 32 industries and 5 partnering institutions. Farmers in Southwest Uganda have benefited from MUST agricultural innovations, which have raised output, improved product quality, and implemented more effective farming techniques. In terms of practical knowledge, our students have also gained a great deal from the community farmers.

8.9 Collaboration /Partnerships

The Faculty has collaborations with the following universities, Institutions and Organizations who are supporting research and training:

(i)   University of Virginia - PhD supervision and study abroad program
(ii)   University of Reading – research, capacity building partnership and study abroad program
(iii)   University of Ghent – PhD training and Capacity Building
(iv)   University of Oldenburg – Postgraduate training and Research
(v)   Free University of Brussels – PhD training, Research and joint supervision
(vi)   University of Santiago – study abroad program
(vii)   Lund University – SRHR training
(viii)   University of Cambridge, research partnership
(ix)   KU Leuven, PhD training and Research
(x)   Gulu University – PhD training and Research
(xi)   Makerere University – Research Partnership
(xii)   Uganda Martyrs University – Research Partnership
(xiii)   University of Wisconsin River Falls- Collaborative Graduate Supervision
(xiv)   Perdue University- Research Partnership
(xv)   Operation Wealth Creation (OWC) NAADS – Research and Students Placement

The Faculty is spearheading the University collaboration with National Agriculture Research Organization (NARO). This collaboration has been very instrumental in supporting the teaching of the Bachelor of Science in Agricultural Livelihoods and Farm Production. At MBAZARDI which is part of NARO, agriculture students at MUST visit the laboratories for their practical sessions and go for Farm attachments for months during recess term/semester.

The signing of a Memorandum of Understanding (MoU) between Mbarara University of Science and Technology (MUST) and the National Agricultural Research Organization (NARO) on October 29th 2024 will be beneficial because it will drive innovations and agricultural research. This is because NARO's extensive research capabilities in agriculture will be integrated with MUST's academic programs such as FIS' BSc. Agriculture and Livelihoods (BSAL) program to foster agricultural development and food security in the country
It is envisaged that there will be access to Research Facilities where BSAL students and faculty can utilize NARO's advanced research centers, laboratories, and experimental farms for hands-on training. Internships & Field Attachments will be carried out at NARO's research stations where they will provide ideal environments for students to gain practical experience in modern agricultural techniques, agroecology, and rural development. Furthermore, there will be collaborative Research; in that joint research projects between MUST and NARO can lead to improved agricultural practices, innovative solutions for smallholder farmers, and new insights into climate-smart agriculture. With the coming up of the new competence based curriculum, the collaboration between MUST and NARO is timely because it will create industry-oriented learning in which NARO's expertise in crop and animal research will help align the BSAL curriculum with real-world agricultural needs, making graduates more competitive in the job market. Students will also learn about and apply new agricultural technologies developed by NARO, fostering innovation in sustainable farming systems. It is also envisaged that BSAL students will participate in outreach programs, helping local farmers adopt improved farming techniques and collaboration with NARO can enhance MUST's role in influencing

agricultural policies and rural livelihoods in Uganda in general.

The Faculty also implements an adolescent reproductive health education outreach program to mitigate repeat teenage pregnancy in 44 health facilities at HCIII and HCIV levels in 4 districts including Mbarara, Rwampara, Ibanda and Isingiro in collaboration with the University of Munich in Germany.

8.9.1 Student-community Twinning Project (STP)

Students-Community Twinning Project (STP) is a community based service learning course offered to allow students to combine learning goals and community service delivery. It is a weekly program where students engage with communities in Mbarara City to develop and pilot community based development projects. It started in 2013. Students and communities use participatory methodologies in identifying community problems and come up with interventions using locally available resources. With this they use knowledge acquired in class combined with practical community experience and become change agents. All undergraduate students in this faculty in their 2nd year and 3rd year (for BSAL students) are exposed to this program. One of the objectives of this program is to create a formidable cadre of graduates with an interdisciplinary mind-set that appreciates and utilizes development resources within their immediate environment that prepares them for working effectively with communities thus ensuring their future employability and self-reliance.

Students and community members preparing briquettes

Some of the STP projects implemented over time especially in Nyakayojo, Mbarara

(i)   Fish farming
(ii)   Liquid soap making
(iii)   Apiary
(iv)   Improved grape farming
(v)   Mushroom growing
(vi)   Craft making
(vii) Poultry Disease Management Project
(viii)   Backyard vegetable gardening

In the academic year 2023/ 2024 we only have 3rd year students from BSAL (Bachelor of Science in Agricultural Livelihood because as a result of covid 19 effect we do not have 2nd years in the remaining two programs (BPCD and BGWH). In this particular year due to reduced funding our focus has moved from Nyakayojo to Katete and Kakoba communities. We have retained only one group in Nyakayojo-Nyakasa Apiary group.

8.10 Future Plans of the Faculty

The following are some of the future plans:

(i) Complete the Faculty Strategic Plan,

(ii) We have just completed and submitted for re-accreditation, the reviewed three undergraduate programs of BSc. Gender and Applied Women Health, BSAL, BSc. Planning and Community Development which is lapsing in June 2025. We are also requesting the University Council to lift up the ban on starting new study programmes especially Postgraduate programs. This will replace the two postgraduate programs that were phased out by MUST Council

(iii) Continue advertising and marketing our programs to increase students enrolment.

(iv) Fully embrace blended learning in the faculty

(v) Continue to attract funding for both research and staff development,

(vi) Recruit core staff for Bachelor of Science in Agriculture and Livelihoods,

(vii) Solicit for funding for the proposed Agricultural Livelihoods Skilling Centre,

(viii) Upgrade the University Farm as a teaching and research structure of the Faculty

(ix) Continue using Artificial insemination to upgrade the herd in the farm

(x) On the farm: Fencing the remaining three paddocks, and practicing paddock based rotational grazing. Constructing a temporary hay barn, and conserving pastures into hay and silage for supplementary feeding of the milking herd.

(xi) Integrating other livestock enterprises on the farm to facilitate students learning and research such as Rabbit keeping and poultry keeping using locally available materials.

(xii) Continue implementing the herd health programme and installation of biosecurity measures on the farm to control diseases such as foot and mouth disease

(xiii) Roll out tutorials for DVS (Development Studies Service Course)

Roll out the following proposed academic programmes:

(i) Master of Science in Livelihoods and Agricultural Innovations.

(ii) Master of Science in Social and Reproductive Health Research

(iii) Master of Science in Development Studies

(iv) Master of Science in Governance Peace and Security

(v) Master of Science in Criminology and Forensic Science

(vi) Master of Science in Biodiversity Conservation & Tourism Development

Sn.	Research (FIS)	Project and Role	Funder	Level of Funding	Partner institution (s)	Other Team Members	Period/Dates
1	Dr. Viola N Nya-kato	Caregiver-Adolescent Sexual and Reproductive Health Communication among Refugee and Host Communities in Southwestern and Northern Uganda (CONNECT)	IDRC, Canada	CAD 1,155,000	University of Winsor Ministry of Health Uganda Red Cross Society Soar Research Foundation	Prof. James Oloo Dr. Harriet Rachel Kagoya Kibuule Dr. Daniel Atwine Dr.Rachel Beyagira	January 2025 to December 2027
		Action Research on the Prevalence of Workplace Gender Discrimination and Violence within the Agriculture, Tourism, and Hospitality Sectors in the Rwenzori and Albertine Regions in Uganda PI	ENABEL Uganda UGA21003	150,000 Euros	KU-Leuven	Dr. Elizabeth Kemigisha Mr. Elias Oyesigye Ms. Dorcus Achen Prof. Kistien Micheisen	October 2023 to December 2024
		Baseline Study on the Current State of Discrimination and Exclusion across Diversities within Targeted Population in the Enabel Intervention Locations and Sectors of Secondary Education, Maternal and Child Health and Skilling Programs. PI	Enabel Uganda 2800UGA-10106	48,200 Euros	KU-Leuven	Dr. Elizabeth Kemigisha Dr. Specioza Twinamasiko Prof. Kistien Micheisen	November 2023 to February 2024
		Improving Adolescent Sexual and Reproductive Health through a Participatory Parent-Child Communication Intervention in Uganda PI	VLIR-UOS UG2019TEA493A103	290,000 Euros	University of Ghent	Dr. Elizabeth Kemigisha Dr. Gad N Ruzaaza Dr. Godfrey Zari Rukundo Prof. Stella Neema Prof. Gily Coene Prof. Kistien Micheisen	2019 to 2024
		Understanding the Marginalized Indigenous Batwa People of South-Western Uganda. PI	USAID – Laser Pulse 7200AA18CA00009 (LASER)	600,000 Dollars	Makerere University University of Perdue Gulu University – Karamoja USAID Uganda	Dr. Gad Ruzaaza Dr. Rogers Bariyo Dr. Odongo Hannington Dr. Elizabeth Kemigisha Dr. Julius Ssentongo Prof. Roy Mayega Prof. Bazeyo	Jan 2019 to Aug 2023

Sn.	Research (FIS)	Project and Role	Funder	Level of Funding	Partner institution (s)	Other Team Members	Period/Dates
		Understanding the Marginalized Indigenous Batwa People of South-Western Uganda. PI	USAID – Laser Pulse 7200AA18CA00009 (LASER)	600,000 Dollars	Makerere University University of Perdue Gulu University – Karamoja USAID Uganda	Dr. Gad Ruzaaza Dr. Rogers Bariyo Dr. Odongo Hannington Dr. Elizabeth Kemigisha Dr. Julius Ssentongo Prof. Roy Mayega Prof. Bazeyo	Jan 2019 to Aug 2023
		Action Towards Reducing Aquatic snail-borne Parasitic diseases (ATRAP 1) Co-PI	Africa Museum, Belgium	1,100,000 Euros	KU Leuven University of Antwerp University of Kinshasa	Dr. Casim Tolo Prof. Grace Kagoro Prof. Tine Huyse	2019 to 2024
		Action Towards Reducing Aquatic snail-borne Parasitic diseases (ATRAP 2) Co-PI	Africa Museum, Belgium - Belgium Development Agency	1,100,000 Euros	KU Leuven University of Antwerp University of Kinshasa University of Amsterdam	Dr. Casim Tolo Prof. Grace Kagoro Prof. Tine Huyse Prof. Lies Jacobs	2024 to 2028
		Stimulating caregiver-early adolescent communication about sexuality in urban Western Cape using community-engaged research Co-PI	VLIR-UOS ZA2024TEA567A101	299,994 Euros	KU Leuven University of Cape Town	Prof. Kistien Micheisen Prof. Lucia Knight Dr Elizabeth Kemigisha	2024 - 2028
2.	Dr. Wendo Mlahagwa	Employing an integration of Mutual aid groups and Informal Saving schemes to alleviate GBV among the Batwa of Kanungu, South Western Uganda PI	USAID and Laser Pulse	USD 32,002	University of Purdue USAID and Laser Pulse	Kokunda Sylvia (Action for Batwa Empowerment Group, Kanungu) Munguciada Esther Faith (LETA for Africa Mbarara) Brian Kaheru (Action for Batwa Empowerment Group, Kanungu)	2022-2023
3.	Dr. Elizabeth Kemigisha	Prevention of repeat teenage pregnancy in SW Uganda (GIZ) PI	(GIZ) – 81281920 (Sub award to MUST)	248,000 Euros	Munich University, Germany	Dr. Viola N Nyakato Dr. Olena Ivanova	August 2022 to May 2024

Sn.	Research (FIS)	Project and Role	Funder	Level of Funding	Partner institution (s)	Other Team Members	Period/Dates
		Improving access to health information and services for adolescents at MRRH PI	TWAS UNESCO SG-NAPI Agreement No. 4500454082	33,500 USD	Munich University, Germany	Dr. Olena Ivanova	August 2022 to May 2024
4.	Dr. Ronald Twongy-irwe	Empowering Ugandan Refugee–host Communities in becoming climate resilient (EMPURECO)	VLIR-UOS	300,000 Euros	University of Antwerp, Muni University, Makerere University.	Prof. Titeca Kristof Dr. Jans Cools, Dr. Simpson Fergus, Dr. Twinamasiko Specioza, Prof. Okia Clement, Dr, Frank Ahimbisibwe, Dr. Ndugu Nelson, Dr. Atwebembeire Jeninah	Sept 2024 – Aug 2029
		Innovation for Sustainability and Societal Relevance: Partnerships in evidence-based higher education on food systems and climate change (INSSPIRE)	European Union	800,000 Euros	University Amsterdam, and 6 other Universities in Europe and East Africa.		Jan 2023– Dec 2025
		Up-scaling mass-rearing of the edible grasshopper and edible cricket species (Acheta domesticus and Scapsipedus icipe) for improved food security, nutrition and sustainable agriculture in northern Uganda (MASEDIN)	VLIR-UOS	EUR 300,000.	Thomas More University of Applied Sciences – RADIUS), Gulu University	Dr. Sabine van Miert Dr. Geoffrey Malinga	2022 - 2027
		Co-Investigator: Restoring Environments, Societies, Ecosystems and Trees (RESET)	Royal Academy of Engineering UK.	29,868.17.GBP	Edinburgh Napier University, Anglia Ruskin University, Carbon reset UK, and the University of Antananarivo		2022–2023
		Intergovernmental Science-policy Platform on Biodiversity and Ecosystem Services (IPBES) thematic assessment of the interlinkages among biodiversity, water, food and health (the 'nexus assessment')	International Science Council.	EUR 16,132.			(2022–2025).

Sn.	Research (FIS)	Project and Role	Funder	Level of Funding	Partner institution (s)	Other Team Members	Period/Dates
		Natural Hazards, Risks and Society in Africa: Developing Knowledge and Capacities (HARISSA project)	€ 1,706,031	Belgium Development Cooperation		Dr. Francois Kervyn, Department of Earth Sciences, Royal Museum of Central Africa (Belgium).	2019–2023 and 2024–2029)
		Bureau for Humanitarian Assistance (BHA) Market Study, Political Economy Analysis & Secondary Data Analysis for Resilience Food Security Activities (RFSA) in Democratic Republic of Congo	USAID and LASER PULSE	USD 40,000			2022
		Proximal and remote sensing of soil quality for supporting farmers' crop agriculture	Makerere Research and Innovation Fund - Government of Uganda	UGX 240,000,000	College of Agricultural; Environmental Sciences (CAES), Makerere University	Dr. Allan Komakech	2020–2022
		Sustainability Transformations in Artisanal and Small-scale Gold Mining: A Multi-Actor and Trans-Regional Perspective Europe, Africa and South America.	UK (ESRC), Brazil (FAPESP), Netherlands (NWO), Sweden (VR), Low-and lower-middle-income countries (ISSC)	€ 1,499,283		Prof. Eleanor Fisher	2018-2022
		Analysis of past and projected future land use change and its impact on sediment fluxes in the Rwizi catchment in partnership with	VLIR-UOS	€ 276,621	KU Leuven.	Prof. Anton Van Rompaey	(2018–2022) –

Sn.	Research (FIS)	Project and Role	Funder	Level of Funding	Partner institution (s)	Other Team Members	Period/Dates
5	Prof. Roberts K Muriisa (Coordinator) Dr. Wendo Mlahagwa (Contact Person) at MUST	European Master in Migration and Intercultural Relations (EMMIR) - an Erasmus Mundus mobility joint Masters programme offering multidisciplinary training in migration studies.	Funded by Education, Audiovisual & Culture Executive Agency (EACEA) under the Erasmus Mundus Framework programme	€ 5.2 -controlled at University of Oldenburg-co-ordinating University	University of Oldenburg; University of south Bohemia ; University of Stavanger; the University of Witwatersrand; University of Nova Gorica; Ahfad University for Women; University of Khartoum; Rabindra Bharati University/Kolkata and Mhanirban Calcutta Research Group/Kolkate	Teaching Team EMMIR at MUST Dr. Cleophas Karooma Dr. Frank Ahimbisibwe Dr. Tom Ogwang Prof. Roberts K. Muriisa Dr. Wendo Mlahagwa	2022-2027 (EMMIR 3). The program existed since 2011(i.e. EMMIR 1 and EMMIR 2)
6	Dr Cleophas Karooma	Sexual and Gender-based violence among protracted refugees in Nakivale refugee settlement, Uganda: Addressing gaps in knowledge and responses	Funded by South Initiative VLIR-UOS project	Euros 70,000	Mbarara University of Science and Technology, Makerere University, Vrije Universiteit Brussel	Dr Cleophas Karooma, Dr Neema Clementia, Dr Eria Serwajja, Ms Veronica Nakijoba, Dr Sophie Withaeckx Prof Gily Coene	2018-2020
7	Dr. Frank Ahimbisibwe	Co-Investigator: Climate Adaptation and Resilience Strategies (CLARS): Socio-Economic Vulnerabilities among Urban Migrants in the Lake Victoria Basin and Great Lakes Region	The New Frontiers in Research Fund (NFRF), Deutsche Forschungsgemeinschaft (German Research Foundation, DFG), UK Research and Innovation (UKRI), The National Science Foundation (NSF)	$3,144,285			(2024-2027)-
		Making Refugee Integration Sustainable: In Search of Durable Relations with Host Populations in Uganda.	VLIR-OUS	€ 198.818)	University of Antwerp	Dr. Ingelaere Bert Dr. Kristof Titeca Dr. Sarah Vancluysen Dr. Karooma Cleophas Dr. Tom Ogwang	2019–2024

Sn.	Research (FIS)	Project and Role	Funder	Level of Funding	Partner institution (s)	Other Team Members	Period/Dates
		Skills acquisition and employability through volunteering by displaced youth in Uganda,	Economic and Social Research Council, UK	£ 861,583).	Northumbria University Northumbria University Loughborough University Uganda Martyrs University Dr. Sarah Mills	Prof. Matt Baillie Smith, Dr. Aisling O'Loghlen, Prof. Peter Kanyandago Dr. Cuthbert Tukundane	2019-2022
		Co-Investigator: Community Theatre: Life Skills for 'Refugee Integration and Vocational Education' (ReIVE),	Arts and Humanities Research Council, UK	£ 250,000	Derby University Derby University Bournemouth University University of Sussex University of Glasgow	Prof. Samuel Kasule Prof. David Sheffield Prof. Julian McDougall Dr. Linda Morrice Dr. Lesley Doyle	January 2021-June 2022
		Girls into Vocational Education (GiVE),	Arts and Humanities Research Council, UK	£ 200,000	Birmingham City University, University of Sussex Derby University, Bournemouth University Derby University	Prof. Alexandra Kendall Prof. Susan Hogan Dr. Isabella Rega Dr. Cedric Nkiko Dr. Linda Morrice	January 2021-June 2022
8	Dr. Specioza Twinama-siko	New City Development and Market Transformation in Uganda (PI)	Internal Research Fund(Government of Uganda)	20,000,000Ugx		Dr.Rogers Bariyo, JohnBosco Nsengyimva , Moreen Bakarungi,Novatus Nyemara and Upton Niwagira	8/12/2022-8/12/2023
		Waiting for the First Oil Drop in Uganda (Co-PI)	Internal Research Fund(Government of Uganda)	20,000,000Ugx		Dr. Ronald Twongyirwe, Adriko, Valence Ngabo	18/12/2023-18/12/2024
		Empowerment and Assessment of Mental Health Literacy among VHTs in Isingiro District, South Western Uganda (Co-PI)	Internal Research Fund(Government of Uganda)	20,000,000Ugx		Hannington , Novatus Nyemara, Deborah Natumanya and Miriam Tugiramasiko	18/12/2023-18/12/2024
		Applying the Theory of Planned Behavior and Innovative Cognitive Style (Co-PI)		20,000,000=		Dr.Alosyius Rukundo, Miri-amTugiramasiko, Dr.Wilbroad, Naster Atwebembire	13.12/2022-13/12/2023

Sn.	Research (FIS)	Project and Role	Funder	Level of Funding	Partner institution (s)	Other Team Members	Period/Dates
9	Elias Oyesigye	Herb-safe: Investigating aflatoxins and heavy metals in Trending herbal drinks-Their impact on food security and cancer Risk (PI)	Internal Research Fund (Government of Uganda)	20,000,000Ugx	UNBS	Elias Oyesigye Dr. Johnbosco Nkurunungi Dr. Wendo Mlahagwa Mr. Raymond Amanya	18/12/2023-18/12/2024
		Actualizing Presidential Initiatives: A Framework for Operationalization of Zonal Industrial Hubs and Agri-led Projects in Uganda's Southwestern and Rwenzori Regions. Co-PI	Ministry of Local Government of Uganda.	286, 000,000 Ugx	NAADs	Dr. Rogers Bariyo Mr. Hanington Odongo Dr. Viola Nyakato Mr. Wilson Nabimpa	December 2022-October 2023
		Risk of aflatoxin contamination in 'posho and beans' served to school children and digital innovations for improved food security. PI	Internal Research Fund (Government of Uganda)	20,000,000Ugx	UNBS	Dr. Johnbosco Nkurunungi Dr. Wendo Mlahagwa Mr. Raymond Amanya	8/12/2022-8/12/2023
		Skills Development Facility Linking Innovative Sustainable Bio Organic Farming Techniques to Youth Employability and Product Value Addition in Uganda (Co-PI)	Private Sector Foundation Uganda.	515,000,000 Ugx	MBAZARDI, Biogas solutions	Medard Twinamatsiko Nixon Kamukama Elias Oyesigye John Bosco Nkurunungi Robert Muzira Wycliffe Tumwesigye	2020/2022

9. FACULTY OF BUSINESS AND MANAGEMENT SCIENCES

9.1 Introduction

Drawing from the Universities and Other Tertiary Institutions Act 2001 as amended in 2003, 2006 section 126, University or Tertiary Institution shall submit an annual report to the National Council and the Minister in a prescribed form, setting out the activities of the institution in that year and its achievement towards its objectives and the set institutional standards. Therefore, this report serves to fulfill the mandate of the Faculty of Business and Management Sciences herein, submit its report for the year ending 2024.

9.2 Background Information

The Faculty of Business and Management Sciences was initially established in March 2013 as an Institute of Management Sciences (IMS) which later became Faculty of Business and Management Sciences (FoBMS) whose mandate is to serve as a Centre of excellence in business management and professional development in Uganda and the region i.e, Rwanda, Tanzania, Burundi, Kenya and South Sudan.

The FoBMS seeks to meet Uganda's needs, as a gateway institution both within the East African region and globally. It serves as a hub for local and global talent, business research, business-university partnerships, global leadership, local entrepreneurship and innovation. The distinctiveness of FoBMS is its focus on meeting the management needs of local, public and private organizations within the dynamic global economy. Building on MUST's core mandate of training, research and outreach programmes, the Faculty of Business and Management Sciences strives to be a complete global management hub, educating the world as well as innovating for the world through training and research. The FoBMS core themes center on interdisciplinary clusters in management, globalization, innovation, agribusiness, food security and entrepreneurship, with focus on specific sectors and issues salient for Africa in particular.

9.2.1 FoBMS Vision

A center for Academic and Research excellence in Management Sciences

9.2.2 FoBMS Mission

To provide quality and relevant management science education at National and International level and its applicability to Sustainable Community Development.

9.2.3 FoBMS Goal

To produce graduates and conduct high quality research and innovations in Management Sciences.

9.2.4 Strategic Objectives

In order to achieve the desired goals, the Faculty of Business and Management Sciences will require a sustainable implementation of a range of strategic objectives laid here below; Objectives

(i)   To offer quality training, knowledge and skills transfer in Management Sciences in line with the labour needs of the country
(ii) To produce relevant skilled graduates with relevant skills in Business and management sciences
(iii) To establish a center for academic and professionalism, high quality research and innovations in Management Sciences
(iv) To enhance the quality and quantity of research and innovation output in Business and management sciences
(v)   To enhance knowledge transfer partnerships among the University, community and the industry
(vi) To create an environment that nurtures confidence among the Faculty graduates through career guidance and internship programs
(vii) To offer tailor-made Management training courses to private and public institutions.

9.3 Student Numbers in Various Programmes

Faculty of Business and Management Sciences is among the Faculties at MUST that enroll students in big numbers as illustrated below;

S/N	Programme	No of Students per Programme		
		Male	Female	Total
01	Bachelor of Business Administration (BBA 1)	80	101	181
	Bachelor of Business Administration (BBA 2)	99	48	147
	Bachelor of Business Administration (BBA 3)	29	12	15
				433
02	Bachelor of Science in Accounting and Finance (BSAF 1)	82	49	130
	Bachelor of Science in Accounting and Finance (BSAF 2)	74	42	116
	Bachelor of Science in Accounting and Finance (BSAF 3)	12	11	23
				265
03	Bachelor of Science in Procurement & marketing (BPSM 1)	49	68	117
	Bachelor of Science in Procurement & marketing (BPSM 2)	58	50	108
	Bachelor of Science in Procurement & marketing (BPSM 3)	21	28	116
				236
04	Bachelor of Science in Economics 1	22	19	41
	Bachelor of Science in Economics 2	7	3	10
	Bachelor of Science in Economics 3	01		01
				54
	MBA 1	41	28	69
	MBA 2	14	30	34
				103
	Doctor of Philosophy			16
	Sub Total no of students			**1,158**

Source: FoBMS 202025

9.4 FoBMS Staff Numbers

Faculty of Business and Management Sciences has the following categories of staff as it is illustrated below;

Staff Numbers			
Staff Categories/ Levels	Male	Female	Total
Professors	-	-	-
Associate Professors	00	-	00
Senior Lecturers	02	-	02
Lecturers	14	03	17
Assistant Lecturers	02	03	05
Teaching Assistants	01	04	05
Non-Teaching Staff	02	04	06
Total	**21**	**14**	**35**

Source: FoBMS 2025

9.5 FoBMS Departments

In pursuit of its Mission and Vision, the Faculty has four Departments;
(i)   Department of Accounting and Finance
(ii) Department of Human Resource Management
(iii) Department of Procurement and Marketing
(iv) Department of Economics

9.6 Teaching and Learning

9.6.1 FoBMS Undergraduate Programmes (3 Years)

The Faculty offers the following undergraduate programmes:
(i)   Bachelor of Business Administration (BBA) with specializations in Accounting, Banking and Finance, Human Resource Management, Procurement and Marketing
(ii) Bachelor of Science in Accounting and Finance (BSAF)
(iii) Bachelor of Science in Procurement and Supplies Chain Management (BPSM)
(iv) Bachelor of Science in Economics

9.6.2 FoBMS Postgraduate programmes

(i)   Doctor of Philosophy (PhD) by research (3 years) in different specializations.
(ii) Masters of Business Administration (MBA), with specializations in Accounting and Finance, Procurement, Human Resource Management and Marketing (2 years)

9.6.3 FoBMS Research Thematic Areas

(i)   Business and Management studies
(ii)   Economic policy
(iii) Economics studies
(iv)   Leadership and Governance
(v)   Organizational studies
(vi)   Cultural and Global studies
(vii) Finance and Accounting

9.7 Core Research Activities

The core curricular areas of the Faculty of Business and Management Science include Accounting & Finance, Marketing, Economics, Procurement, and Management Accounting and Organizational behavior. Globalization: Specific areas of current and future research include: global financial flows and markets; globally networked firms; global and regional production networks; global climate change, global social and environmental movements; regional development; government regulation and policy; global non-governmental organizations; cross cultural interactions and transformations.

9.8 Community Engagement

To enable its students to transform theories and concepts learnt in class into practice, the Faculty of Business and Management Sciences has Internship and Community Outreaches embedded in their curriculums. The Faculty arranges offsite trainings to students of third year. Also, the Faculty organizes workshops for both its staff and students as a strategy to strengthen their abilities in research.

9.9 Resources Available

The Faculty has the following resources to ease learning and Teaching Environment:
(i)   Faculty Incubation is Centre open to young innovators
(ii) A well-established University library, one min-library and one Book Bank are always available with enough reading materials.
(iii) Enough Lecture Rooms are available within the Faculty.
(iv) Sufficient teaching aids and instructional materials like 05 projectors, whiteboards, and laptops for some staff members among others.

9.10 Quality Assurance Mechanisms

The Faculty has the following Quality assurance Mechanisms to assess the Quality of programmes and courses, Quality of academic staff, Quality of teaching and learning experience, Quality in student assessment, Internal moderation, Quality in support services, Quality of resources and facilities, Quality of research and Quality program review process. These include;

(i) Research Policy and Post graduate hand book documents
(ii) Curriculum for each programme and course and policies regarding admission and retention of students.
(iii) Examination regulations handbooks for both students and staff to guide on learning, teaching, assessment, student support, marking and examinations, plagiarism, cheating, instructions to examiners.
(iv) Faculty policy documents and codes of practice on curricula, equal opportunities etc.
(v) The Faculty has a Quality Assurance committee to review Curriculum and courses after every five years.
(vi) The Faculty conducts needs assessment by consulting stakeholders and other relevant parties on the programme/courses under review.

9.11 Growth and Development of the Faculty

(i) The Faculty recorded an increase in access to higher education through introducing relevant programmes applicable to community development which has led to increase in student enrolment in academic year 2024/2025.
(ii) There has been an increase in students' enrollment by (15% Post graduate) and 15% undergraduate
(iii) The Faculty has registered an increase in the number of staff with PhD.
(iv) There has been continuous improvement Internship and community outreach programmes to make them more relevant
(v) Students' exchange Programme has enhanced their knowledge of foreign cultures and strengthened their international relationships which are desired by the current work market.
(vi) Staff mobility and exposure across the world has enhanced the quality of teaching and the outputs thereof
(vii) The Faculty has been able to sign some MoUs with industry and other Institutions of higher learning to improve the quality of outputs.

9.12 Collaborating/ Partnership

The Faculty has been able to collaborate with individuals and organizations in research related to Business and outside Business fields. To solve current global challenges, an interdisciplinary research approach becomes crucial. Currently, the Faculty has the following collaborations as it is illustrated below:

Partner	Year established	Area of collaboration	Outcome
Mainz University of Germany	2019	Student/Staff exchange	On going
Uganda Technological and Management University (UTAMU),		PhD student enrollment	Graduated no of PhD Students
University of Virginia			Students and staff exchange
Darden Business School	2019		Students and staff exchange
Uganda Institute of Banking & Financial Services			Student scholarships Collaborative training
ACCA Uganda	2018		Awards to the best students in Accounting Exemptions and discounts for students Industry expert lectures

9.13 Innovation

(i) Creating a national economic and policy data bank
(ii) Enables students to be job creators through Business Incubation Centre.
(iii) Industry involvement and Community outreach in line with the University mission.
(iv) Offers specializations within certain fields of study.
(v) Multidisciplinary training.

9.14 Future Plans

The Faculty has the following future plans
(i) To Establish a MUST Economic and Policy data centre
(ii) To enhance partnerships and collaborations for improved services through resource mobilization and staff exchange.
(iii) Develop new infrastructure like a big computer laboratory and internet for appropriate student facilities.
(iv) Enhance learning management systems
(v) Increase funding for research and innovation through writing research grants, lobbying for government to increase funds for staff capacity development and also introduce short courses and new programmes to increase our revenues.
(vi) Enforce pedagogical training for Academic staff
(vii) Enhance visibility by community outreaches

9.16 Mitigation Measures

(i) The Faculty needs strong support from Government
(ii) The Faculty needs strong management support
(iii) The Faculty needs to introduce new and short courses to generate funds

Finally, the Faculty is grateful to MUST management and staff of FoBMS for the work well done in supporting and grooming students for the market and shaping their future.

10. FACULTY OF COMPUTING AND INFORMATICS

10.1 Faculty Strategic Objectives

(i) Increase the number of innovations in the Faculty of Computing and Informatics
(ii) Promote community engagement in research and teaching
(i) Increase graduate employability.

The Faculty of Computing and Informatics (FCI) continues to be responsible for teaching, research, community outreach and implementation and support of ICT services at MUST.

10.2 Students Enrolment

Course	Duration (Years)	Male	Female	Total enrol-ment (2024)
Computer Science	03	150	68	208
Information Technology	03	169	105	269
Software Engineering	04	191	68	261
Master of Science in Health Information Technology	02	12	6	18
Master of Science in Information Systems	02	37	15	52
Doctor of Philosophy	03	17	9	26
Total				**834**

10.3 Academic Programmes

FCI aims at being a centre of multi-disciplinary training and research and also transforming new knowledge into practical solutions that solve community problems. The academic programmes at the faculty include:

10.3.1 Postgraduate programs
The postgraduate programs have attracted a number of students from both Uganda and outside. All this is because the staff are committed in mentoring the postgraduate students. The Faculty is currently running the following postgraduate programs:

(i) Doctor of Philosophy (PhD) in Computing by research (3 years)
(ii) Master of Science in Information Systems (MSIS) - (2 years)
(iii) Master of Science in Health Information Technology (MHIT) - 2 years)

It is worth noting that the following programs have been pended because they did not consistently attract the required number of students:

(i) Master of Business Informatics (MBI) - (2 years)
(ii) Postgraduate Diploma MIS, PG.HIT; PGD.BI @ 1 year

10.3.2 Undergraduate programs
(i) Bachelor of Science Computer Science (BCS) -   3 year program
(ii) Bachelor of Information Technology (BIT)   -   3 year program
(iii) Bachelor of Science in Software Engineering (BSE) -   4 year program
(iv) Certificate in ICT Short courses – 2 to 6 months duration

10.3.3 Other planned Post and Undergraduate programs
Curricula for the following programs are underway to completion:

(i)   Diploma in Computer Science - 2 years
(ii)   Diploma in Information Technology - 2 years
(iii) Bachelor's degree in Media Computing - 3 years
(iv) Bachelor's degree in Forensics Science - 3 years
(v)   Masters & Bachelor's degree in Data Science - 3 years

10.4 Teaching and Learning

Teaching and learning was smoothly done despite the usual financial constraints that were experienced.

10.5 Quality Assurance Mechanisms

The Faculty Quality Assurance Team works with guidance of the Inter University Council of East Africa and the National Council of Higher Education, to ensure that quality assurance is adhered to. This was done by ensuring there was examination moderation for students' examinations for both semesters in 2024. Quality Assurance committee supported the Curriculum Review process for BIT and BCS programs. For teaching and learning competence, evaluation forms were prepared and submitted to the students to fill and evaluate the process. Course completion and course work submission form were prepared and given to the students to fill and evaluate the process.

10.6 Examination Moderation

The aim of this exercise is to ensure that quality examinations are set. This exercise was successfully done and harmonized in accordance with QA requirements. An academic staff set his/her exam and submitted to another staff as per scheduled arrangement to check the quality element for all examinations before administering them to students.

10.6.1 Examinations
The academic staff set exams for the end of Semester 2, 2023/2024 academic year, marked the examination scripts and submitted results for approval by the Faculty Examiners' Board. Thereafter the results were presented in the Sub-committee of the Senate and approved.

End of Semester 1, 2024/2025 academic year, students were assessed, marked the examination scripts and submitted results before the end of the calendar year 2024.Examinations were also well concluded. Departmental and Faculty Examiners Board shall sit and approve faculty results early January 2025. Thereafter the results shall be presented in the Sub-committee of the Senate for further consideration and consequently approval by the Senate. There were few incidents of students who missed exams due to fees. One student missed exams because he had lost his dad. Only one staff, did not enter marks at the time of Faculty Board sitting. Only one staff, did not enter marks at the time of Faculty Board sitting.

10.6.2 Review of existing Programs
The following programs were reviewed and are awaiting approval by National Council for Higher Education (NCHE):

(i)   Bachelor of Science Software engineering
(ii)   Bachelor of Information Technology
(iii) Bachelor of Science in Computer Science
(iv) Master of Information System (MIS)

10.7 Faculty Departments

The Faculty currently has three departments and two units. These are:
(i)   Department of Information Technology
(ii)   Department of Computer Science
(iii) Department of Software and Informatics Engineering
(iv) Computing Services Unit, which shall be autonomous starting 2025/2026 financial year
(v)   Software Incubation and Innovations Unit

10.8 Highlights from Departments

10.8.1 Department of Information Technology
The department offers an undergraduate degree in Information Technology taught on full time basis and graduate degree as well as Postgraduate Diploma programs taught on weekends at the town campus. During two semesters teaching and examinations were successfully done. Students sat exams, they were assessed and results submitted accordingly.

10.8.1.1 Research & Development
Final year students presented their research projects and submitted them for assessment. The best students were invited to showcase their projects during FCI awards.

10.8.2 Department of Software Informatics and Engineering
(i)   The population of Software Engineering students is steadily growing from a total of 12 students since her inception to the current BSE total of 261 (26% female).
(ii)   The department staff is currently engaging with the rest of the staff in the faculty   involved   in teaching the different subjects of Software Engineering to develop   new programs. The programs currently being discussed include:
a)   BEng Software and Electronic Systems Engineering
b)   Bachelor of Science in Systems Engineering
c)   Bachelor of Science in Embedded Software Engineering

(iv) Bachelor of Science in Software Engineering program was reviewed, approved by MUSTSenate and thereafter submitted to National Council for Higher Education for final approval.

All staff in the department were appraised as a requirement.

10.8.2.1 Research & Development
The department now has four (4) staff, that is, one senior lecturer, one lecturer and 2 Assistant Lecturers. One staff member is hoping to complete his PhD studies early   2026.
In the department, research was carried out and some publications made as indicated under the publications theme.

10.8.3 Department of Science in Computer Science
The Department of Science in Computer Science aspires to be a university's greatest computing and technology centre that is recognized nationally and internationally for excellence in teaching and research approach. The department offers both undergraduate and graduate degree programs in Computer Science. The undergraduate programs are taught full-time at both town and Kihumuro campuses, and postgraduate programs taught on the weekends.

All staff in the department were appraised as a requirement.

10.8.3.1 Departmental Achievements
The process of finalizing the structure for the Masters curriculum for Data Science is on-going. This activity was initiated by FCI, but was geared towards the UCoBS project. Once completed, it will be under the Department of Science in Computer Science in the Faculty of Computing and Informatics.

10.8.3.2 Research & Development
Final year students in the department successfully defended their research projects and submitted their reports to the research coordinator. The department has over 12 PhD students already enrolled in the program. This will strengthen research and innovation in the department.

10.8.3.3 Departmental Future Plans
The academic staff in the department still engage with the rest of the staff in the faculty to develop new programs. Among the programs currently being discussed are:
(i) BSc Data Science
(ii) MSc Data Science
(iii) MSc Information Security and Cyber Forensics

10.9 Computing Services Unit

The Computing Services Unit is mandated to maintain and manage all ICT infrastructure and services to enable teaching, learning, research, communication, collaboration and community engagement at Mbarara University of Science and Technology. The unit also provides continuous training and support to staff and students on the use of ICT. It is worth reporting that in the financial year 2025/2026 the department will be semi-autonomous.

10.9.1 Use of the E-Learning Management System (e-LMS)
Having worked with Cyber School Technology Solutions to improve the functionality of LMS. It was resolved that it be used at the beginning of the 1st semester of 2023/2024 academic year in September 2023.

10.9.2 Students trained
At the beginning of 1st Semester 2023/2024 orientation programmes were arranged for fresh students of respective faculties. However, due to time restrictions during the sessions it was realised that many of the students would not fully understand how to access and use the LMS. As a result, subsequent training sessions with different class groups were arranged at the convenience of the students and a total of 293 students benefited through their respective programs.

10.9.3 Digital Content Hub/Studio
The planned Digital Content Studio has been earmarked and 2 rooms demarcated on the first floor of the FAST Multipurpose Building at Kihumuro Main Campus. The civil works to remodel the facility into a studio were completed on 15th December 2023 at a total cost of UGX49,485,000. The first furniture was also received on 15th December 2023.

10.9.4 Review of eLearning Policy
With support from Cyber School Technology Solutions and 8 Tech Technologies, the first draft of the revised eLearning Policy is ready for the initial presentation to the University Academic Affairs Committee. The revised policy seeks to incorporate innovative digital technology for improved teaching, learning, research and quality education.

10.9.5 Affordable Computing Devices to Staff and Students
The Cyber School Technologies/Mastercard Foundation eLearning initiative are finalizing the students' Laptop loan facility and a concrete proposal is expected to be presented to the university soon. In July 2023 a total of 6 students and staff with disability received laptops and assistive software as part of this initiative. Additionally the University received 10 laptops, valued at US$6,500, expected to be used for content creation and development.

10.9.6 Expanded WiFi Connectivity

The initiative through the Research and Education of Uganda (RENU) undertook a physical survey of both Mbarara town and Kihumuro campuses and proposed design for the expanded Wifi was documented. The initiatives expected to fund the installation of equipment worth US$10,000 and installation work is expected to commence in January 2024.

10.9.8 Recommendations

(i) Approval of the revised eLearning policy, to put in place the adequate working framework for eLearning at MUST.
(ii) Efforts to stabilize the power environment at MUST should be intensified.
(iii) Alternatives to host the eLearning Server in the Cloud, to ensure its constant availability, should be considered.
(iv) With the setting up of a Digital Studio, well-scripted short, recorded content video should be encouraged at the expense of long on-line lecture sessions.
(v) A better, streamlined training program for all staff and students.

10.10 Software Incubation and Innovations Unit

The unit continues to mentor students on how to initiate a number of innovations. Staff also engage in innovations and incubation. A number of activities of on-going research innovations and partnerships include:

10.10.1 Other On-going Innovations

10.10.1.1 Google Developer Student Club (GDSC)

GDSC MUST is an innovative academic club aimed at helping students improve their hands-on skills. This has enabled the students gain self-confidence because of frequent interactions with numerous students and people already working in the field of technology. The students have been able to learn a lot about technological skills such as problem solving, coding, and flutter during the flutter study series that were conducted.

10.10.1.2 Innovation Truck

There is also a new truck called Innovation track where students design different technology systems to solve environmental problems.
With the theme of "Connection, Glory, Future", the Huawei ICT Competition gathers governments, higher educational institutions, training institutions, and industry enterprises to promote the cultivation, growth, and employment of ICT young professionals from universities and colleges, helping the ICT talent ecosystem thrive. The Faculty encourages more students to take on these training sessions to be able to cultivate the ICT talent ecosystem to thrive. The student representative for MUST Academy with Huawei Uganda got a training as part of preparations for the Regional Finals. These innovations are ongoing.

10.10.1.3 Participation in Hackathon

Students participated in Hackathon, from where their challenges, skills have been improved. They have also been able to embrace teamwork which acted as a breakthrough for the students to always work as a team even after the GDSC sessions at MUST.

10.10.1.4 Developer Student Clubs Lead

Developer Student Clubs (DSC) are community groups for students from any academic background in their undergraduate or graduate term. By joining a DSC, students build their professional and personal network, get access to Google developer resources, and work together to build solutions for local problems in a peer-to-peer learning environment.

10.10.2 Challenges and Recommendations

(i) Staffing: SIIU has only one full-time staff. This makes it difficult to handle all the tasks that the department could do. Software development is a team activity, and it would be great to hire more staff to be able to do more work. A previously filled position for system administrator has not been filled.
(ii) Software Incubation and Innovations lab: SIIU lab needs to be set up to allow a co-working space where student innovations can be nurtured.

(iii) Space has been earmarked at the new FCI building. Efforts to fast track this development and later to acquire equipment for this lab would encourage software innovations.

(iv) Policy for commercialization of software: A policy needs to be put in place that encourages SIIU and other staff at FCI to engage in commercial software development for the university.

(v) Budget: An annual budget needs to be dedicated to innovation activities at FCI. We appreciate the budget for the annual FCI awards. However, more can be done to further support these innovations once they have been selected.

10.11 Research Output

10.11.1 Research Capacity Building
The trend of research at the faculty is changing as more senior members of staff acquire higher qualifications and more expertise. This is greatly boosting the research capacity in terms of mentorship. Senior researchers have continued to excel and mentor junior ones by carrying out joint research grants and publications.

10.11.2 Research and Projects
FCI staff competed and won MUST internal research funds that assisted them to execute research projects. These included Dr. Simon Kawuma, Dr. Aggrey Obbo, Mr. David Bamutura, Mr. Francis Kamuganga and Mr. Amos Baryashaba.

10.12 Publications

A number of staff made publications, first authors while others were co-authors:

10.12.1 Peer reviewed journal publications
Staff published a number of journal papers which included:

(i) Musiimenta A, Tumuhimbise W, Atukunda E, Mugaba A, Linnemayr S, Haberer J. (2024). Digital Adherence Technologies linked to Mobile Money Incentives for Medication Adherence among People Living with Tuberculosis: A Mixed Methods Feasibility and Acceptability Study. Accepted in JMIR Human Factors

(ii) Atuhe A., Usable Security in Work from Home Environments: Understanding User behavior Pattern and Risk Assessment: A Systematic Literature Review. http:/doi.org/10.51584/IJRIA5.2024.912009.

(iii) Akampurira Paul (Ph.D), Bashir Olaniyi Sadiq Ph.D, Dahiru Buhari Ph.D, Maninti Venkateswarlu Ph.D, Atuhe Aarone, Mugisha Brian (2024). A Review of Neural Networks for Enhanced User Entity Behavior Analytics in Cybersecurity: Addressing the Challenge of Vanishing Gradient.

(iv) Akampurira Paul, Atuhe Aaron, Mugisha Brian , Kyomuhangi Rosette,Alitweza Joshua, Ainomugisha Maxima, Tumuramye Juliana, (2024): Leveraging Interpretable Models And Low Complexity Models For Early Breast Cancer Diagnosis: A Machine Learning Approach.

(v) Tumuhimbise, W., Theuring, S., Kaggwa, F., Atukunda, E.C., Rubaihayo, J., Atwine, D., Sekandi, J.N. and Musiimenta, A., 2024. Enhancing the implementation and integration of mHealth interventions in resource-limited settings: a scoping review. Implementation Science, 19(1), p.72.

(vi) Kobusiingye, F., Ssembatya, R., Kaggwa, F. and Ejiri, A.H., 2024. Evaluating Agricultural Extension Frameworks in Resource-Constrained Regions: Strengths and Weaknesses. European Journal of Science, Innovation and Technology, 4(4), pp.306-310.

(vii) Arunga, S., Morley, K.E., Kwaga, T., Morley, M.G., Nakayama, L.F., Mwavu, R., Kaggwa, F., Ssempiira, J., Celi, L.A., Haberer, J.E. and Obua, C., 2024. Assessment of Clinical Metadata on the Accuracy of Retinal Fundus Image Labels in Diabetic Retinopathy in Uganda: Case-Crossover Study Using the Multimodal Database of Retinal Images in Africa. JMIR Formative Research, 8(1), p.e59914.

(viii) Näher, A.F., Krumpal, I., Antão, E.M., Ong, E., Rojo, M., Kaggwa, F., Balzer, F., Celi, L.A., Braune, K., Wieler, L.H. and Agha-Mir-Salim, L., 2024. Measuring fairness preferences is important for artificial intelligence in health care. The Lancet Digital Health, 6(5), pp.e302-e304.

(ix) **Kimera,** R., Kim, Y.S. and Choi, H., 2024. Advancing AI with Integrity: Ethical Challenges and Solutions in Neural Machine Translation. *arXiv preprint arXiv:2404.01070.*

(x) Dayil, J.L., Akande, O., Mahmoud, A.E.D., **Kimera, R.**& Omole, O. Challenges and opportunities in Machine learning for bioenergy crop yield Prediction: A review. *Sustainable Energy Technologies and Assessments*, 73, 104057. Available at: https://doi.org/10.1016/j.seta.2024.104057.

(xi) **Kawuma, S.**, Kumbakumba., E.Mabirizi, V., Nanjebe, D., Mworozi, K., Adolf Oyesigye Mukama, A., Kyasimire L.'(2024): Diagnosis and Classification of Tuberculosis Chest X-Ray Images of Children less than 15 years at Mbarara Regional Referral Hospital Using Deep Learning.

(xii) Engwau, T**., Kawuma, S**., Kajabwangu, R., (2024) Leveraging Geo-Spatial Data to Model Cervical Cancer Incidence Patterns in South Western Uganda.

10.13 Grants won

Dr. Angella Musiimenta:
(i)   4R33HD107985-03, 01/07/2023-30/06/2026
(ii) Sponsor: NIH/NICHD
(iii) Title: My Mobile Wallet: An Intervention to Support Access to Tuberculosis Care and Medication Adherence in Rural Uganda
(iv) Role: Principal Investigator

Dr. Fred Kaggwa
(i)   A one-year Grant Award GC Africa Round 15 (2024): Catalyzing Equitable Artificial Intelligence (AI) Use to Improve Global and Digital – Title: Dialogues of Delivery: Fine-Tuning Large Language Models for Prenatal and Perinatal Care in East African Languages. Ref: SFA-R15-0145
(ii) Afour (4) year Grant as a Co-Investigator (started in July 2024)
AI-driven placental imaging tool to reduce adverse pregnancy outcomes through prediction of neonatal sepsis (2024–2028).

10.14 Growth and Development of the Faculty

Despite the Lock-down period, some staff in FCI continued to carry out academic activities while observing the SOPs that had been given out by H.E the President of Uganda, with the guidance of the Ministry of Health to protect against COVID-19 pandemic.   Both academic and administrative staff did commendable work aimed at enhancing students' progress.

10.15 Staff Development

A number of staff were enthusiastic in furthering their studies to gain more knowledge and skills. The current staff pursuing PhD Programmes include:

	Name	Expected Year of completion
1	Mr. Robert Mugonza	2025
2	Ms. Tezira Wanyana	2025 awaiting graduation
2	Mr. David Bamutura	2025
3	Mr. Martin Ngobye	2025
4	Mr. Francis Kamuganga	2025
5	Mr. Rogers Mwavu	2025
6	Ms. Josephine Ayebare	2025
7	Mr. Yonasi Safari	2026
8	Mr. Aarone Atuhe Mike	2026

10.16 Staff Achievements

(i)   Dr. Richard Kimera completed his PhD in Engineering at Handong Global University (HGU) in South Korea and returning to MUST early 2024.

(ii) Dr. Richard Kimera represented the University in a Validation workshop of the National data strategy at the national ICT Hub in Nakawa on 19 November 2024.

(iii) On 29th November Dr. Richard Kimera participate in the "First Ever Uganda National STEM and Vex Robotics Education Championship.

(iv) Dr. Fred Kaggwa was invited as a distinguished panelist on a panel discussion titled *"Specific AI Applications, Opportunities, and Related Challenges in Higher Education."* This event was scheduled **19th August 2024** at **Oxford Hotel, Mbarara**, from **2:00 PM to 3:20 PM**.

(v)   Dr. Kaggwa successfully organized the 9th PhD symposium at Kihumuro Campus

(vi) Dr. Kaggwa was Invited to participate as a panelist at the **AI in Health Africa Conference 2024**, scheduled to take place on Thursday, **28 November 2024**, at the **Imperial Royale Hotel, Kampala**, under the theme: **"Building a Strong Ecosystem for AI in African Health – From Research to Policy and Practice."**

The panel discussion focused on **exploring the foundational elements required to build a sustainable AI ecosystem** that addresses Africa's unique healthcare challenges. Specific topics included **infrastructure, policy frameworks, skills development, and cross-sector collaborations**, all of which were vital for fostering an environment where AI innovations could thrive.

10.17 Benchmarking visit Hosted by AP Hogeschool, Antwerpen

On 15 April, 2024 two academic staff were sponsored by UCoBS under Gender and ICT. The exercise was directed towards comparing practices as far as the delivery of Computer Science and Information Technology courses are concerned. The aim was to learn about the good practices at AP Hogeschool as well as other Belgium institutions and to establish whether the same practices can be applied at Mbarara University of Science and Technology (MUST) in teaching, learning, internships and research supervision.

The hosts of the duo organized a detailed program to get full exposure to and a deep understanding of their different practices on how they delivered their programs and what was expected of the students. These activities included: visiting U- Gent Data Centre; Presentations of the Internet of Things (IOT) projects; looking at the AI Curriculum and AI in Research and Education; Using Project Methodologies in Education such as co-teaching with industry among others.
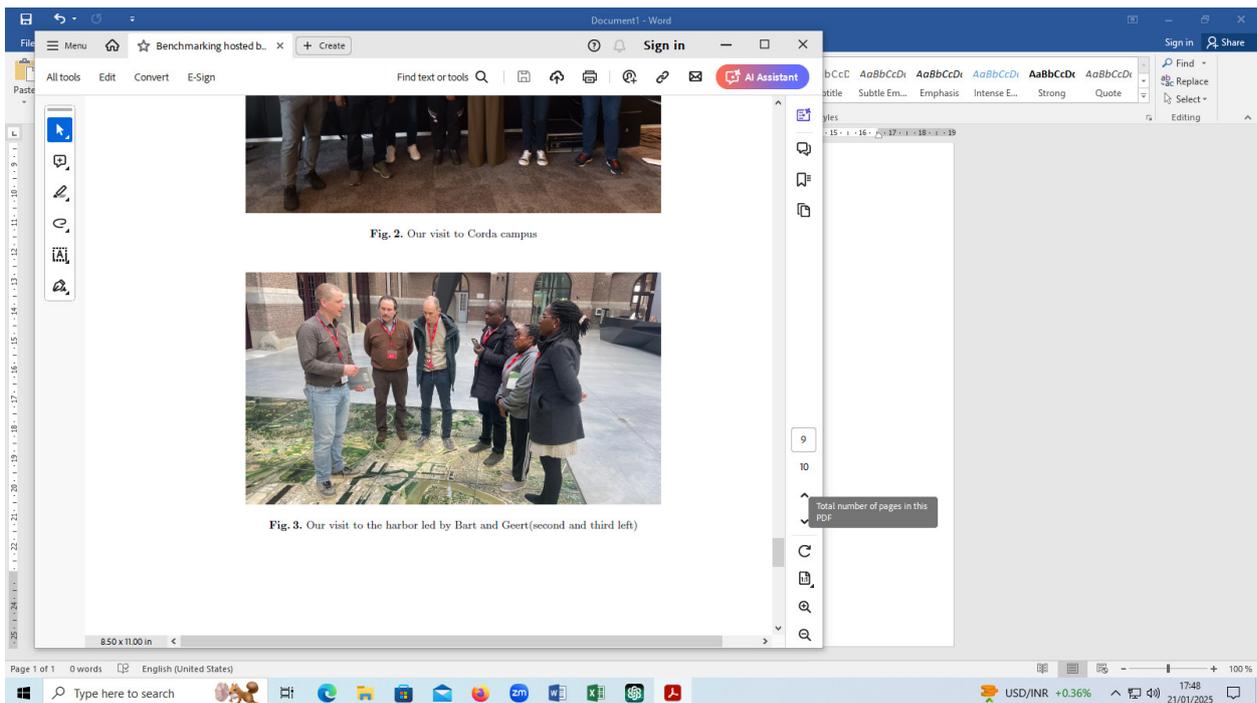
Dr. Ruth Nyakato and Ms. Tezira on a benchmarking tour in Belgium

After the tour the following recommendations among others, were drawn for both FCI and MUST at large:

(i) Collaboration with industry at AP to improve the quality of our graduates at MUST. This could be achieved by maintaining ICT social networks to alumni and ongoing students and staff.

(ii) In future, FCI in conjunction with the Computing Services Unit could plan to avail storage to students while they are working on their final year projects.

(iii) Make a registry for the faculty network and successful alumni that can be called upon occasionally to inspire the current students.

(iv) Examining final year research, projects could be done by a jury that consists of 2 lectures and the student's supervisor instead of full day panels. This would help create more time for examining each individual. projects

10.18 Staff Promoted/harmonized

The following staff were promoted/harmonized

	Name	Previous Position	Current position
1	Mr. Peter Bambanza	Assistant IT Technician	Assistant IT Officer
2	Mr. Martin Kijumi	Assistant IT Technician	Assistant IT Officer
2	Mr. Jude Oyo	Lab Assistant	Assistant IT Technician
3	Mr. James Turinoha	Office Attendant	Office Attendant
4	Ms. Judith Kemirembe	Office Attendant	Office Attendant
5	Ms. Jane Frances	Office Attendant	Office Attendant

Some of our support staff salaries were harmonized. They are now happy and motivated.

10.19 Visitors to the Faculty

The faculty hosted some visitors during the period January to December 2024. These include:

S/N	Name	Address	Purpose of the visit
1	Ms. Patricia Oweka	Office of Auditor General, Kampala	Audit Inspection into infrastructure in different faculties at MUST
2	Ms. Nabuye Damalie	Office of Auditor General, Kampala	Audit Inspection into infrastructure in different faculties at MUST
3	Mr. Ronald Bukenya (Alumni)	Stanbic Bank Head Office, Kampala, Database Administrator	Consultation on ICT

10.20 Collaborations/Partnerships

Partner	Year Established	Area of Collaboration	Outcome
Google	2010	Offers Google ambassadorship to FCI students	Google ambassadors in different fields
Uganda Industrial Research Institute (UIRI)	2011	Training staff and offer industrial training places to FCI students	Hands on skills
Massachusetts Institute of Technology (MIT-Sana)	2011	Offers short courses to some Faculty staff	Knowledge and skills gained
Somali International University(SIU)	2015	Offers students exchange for short stay at FCI to complete their Bachelor's program	Students get
Empower Youth in Technology experiences (EYIT)	2018		
Handong Global University (HGU)	2024	Academic research, students exchange to acquire more skills	Academic, research cooperation.

10.21 The New Collaboration

MUST has a new partnership with Handong Global University (HGU) in South Korea that was formalised through an MoU signing ceremony held at MUST's Kihumuro campus on 8th July 2024. The partnership was aimed at promoting academic cooperation, research collaboration, and student exchange between the two institutions. The institutional partnership was designed to facilitate mutual understanding, knowledge sharing, and capacity building between the two institutions. It will provide opportunities for students, faculty, and staff to engage in collaborative research and innovative projects, exchange programs, curriculum and capacity building engagements. The partnership will also enable the sharing of expertise, resources, and best practices in various fields such as ICT, life sciences, engineering, agriculture and business.

Speaking during the signing ceremony, Assoc. Prof. Charles Tushabomwe- Kazooba representing the Vice Chancellor emphasized the importance of international partnerships in promoting academic excellence and global competitiveness. He appreciated the Faculty of Computing and Informatics (FCI) that initiated the partnership led by Dr. Richard Kimera (a recent PhD graduate in Natural Language Processing-NLP from HGU) and Dr. Evarist Nabaasa, the FCI Dean, assisted by both Dr. Kalungi Dickson, senior deputy registrar and Sheila Niinye of the International Relations office at MUST. The partnership is expected to have a positive impact on both institutions and contribute to the growth of academic excellence in Uganda and South Korea.

10.22 Workshops

10.22.1 Gender and ICT Workshop
On the 20th November 2024, the Gender and ICT sub group of project 6 held a workshop in UCOBS building, MUST Town campus to discuss the following:
The Morning session consisted of a presentation and discussion of take homes for FCI from the recommendations on curriculum implementation, supervision of student research projects, and teaching and assessment methods that we gathered by the team (Dr. Ruth Nakato and Ms. Tezira Wanyana) that benchmarked about the same in Belgium.

Afternoon session was about presentation of the highlights of the current MUST sexual harassment policy and brainstorming policy recommendations (staff perspectives).
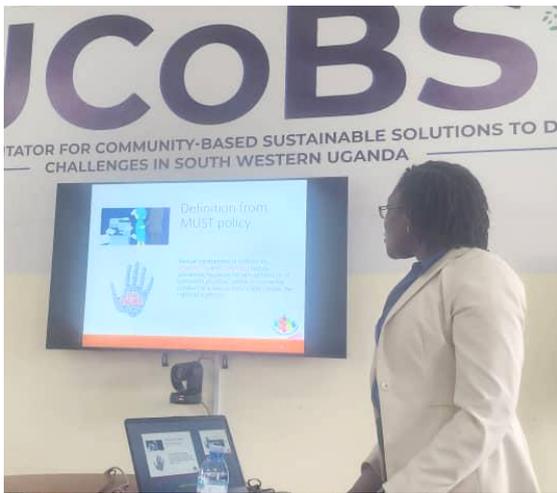
Dr. Jane Katusiime giving a presentation about Gender and ICT

Partipants during the Gender and ICT workshop
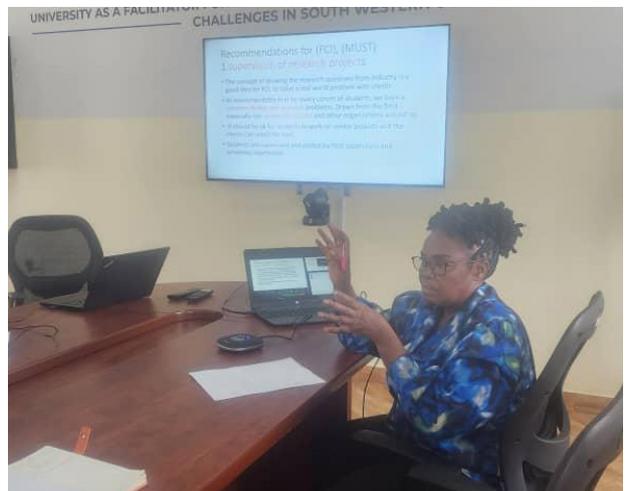
Dr. Ruth Nyakato presenting during the Gender and ICT workshop

10.22.2 Awareness for Girl-Child in Science programs

A team of students from St. Mary's Vocational Girls School under Father Bash Foundation visited MUST, specifically the Faculty of Computing and Informatics to be oriented on the science programs offered at FCI and MUST. Dr. Evarist Nabaasa and Ms. Gloria Munguci oriented them on a number of programs and how they should go about. They specifically informed them that in order to take on such programs they must read hard and understand the concept while still in secondary schools to enable them pass examinations, and thereafter be admitted to pursue ICT and other science programs.
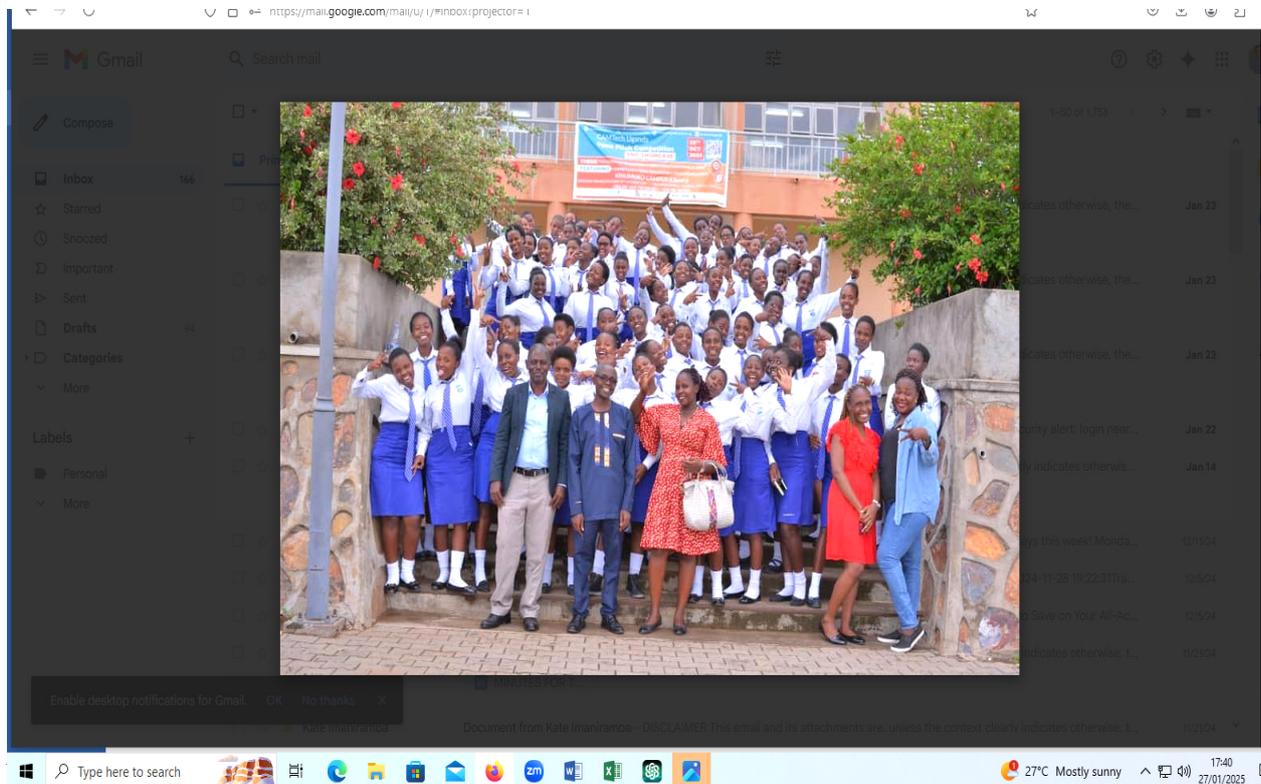
10.23 Industrial Training

The office of the Industrial training coordinator together with the administration of the Faculty of Computing and Informatics annually identifies and defines the regions conducting Industrial training from. The reason for defining these regions is to limit students from going to places that are hard to reach and also outside the country. This limitation is still attributed to the fact that funds would not be available to facilitate lecturers outside the country and to supervise students in those far and hard to reach places from the university.

10.23.1 Regions of Supervision

The Faculty of Computing and Informatics still has a limited span of regions where students can do their industrial training for 8 weeks. This continues to be mainly attributed to the limited funds for supervisors to supervise as well as limited ICT/Computing Based companies/organizations in the country at large. Training and supervision were carried out in two main regions., Central and Western regions. There is a big challenge of getting big companies that would be very helpful to our students and yet they are far to reach and others are in the neighbouring countries like Kenya, Congo, Burundi, Rwanda, South Sudan and Tanzania. This has also been a challenge to our international students who would like to train from better ICT/computing companies in their countries.

10.23.2 Time for Supervision

Students reported to their training placement areas/companies on 4th to 24th June 2024. Supervision was done twice by the supervisors, that is from 24th June 2024 – 28th June 2024 and 24th July 2024 to 31st July 2024 respectively. The industrial training ended on 31st July 2024.

10.23.3 No of students supervised

The total number of Students Supervised during the period June – July 2024 was 134. Amongst the total number of students supervised during the, 8 were government students; 3 from Bachelor of Computer Science and 5 from Bachelor of Information Technology. These were facilitated each with a similar amount of (227,125/=) under the government schedule to support them during the industrial training period.

10.23.4 Training Sites

Due to limited funds, a few companies were surveyed. An evaluation form is always carried out to assess these companies based on the ICT services they provide in line with what the university requires. On a good note 4 new companies joined the training companies. It is hoped that more collaborations with other companies will come on board in the near future.

10.24 Future Plans

10.24.1 Computer Science Department

(i) Write and Start postgraduate programs in Cyber security and Forensics Sciences.

(ii) Recruit more qualified academic staff to boost the department in terms of grant writing and publications

(iii) Develop a research agenda for the department

(iv) Establish MUST-ICT consultancy to provide specialised services to MUST and other institutions, to boost the income of the department

(v) Develop curriculum for Bachelors in Data Science and also curriculum for Masters in Data Science.

10.24.2 Computer Engineering Department

(i) The department will continue engaging in research grant writing and also look for more possible collaborators like Google and Microsoft.

(ii) The Department will continue to publish in reviewed journals.

(iii) The department plans to maintain the established collaborations and establish even more others.

The department staff is currently engaging with the rest of the staff in the faculty involved in teaching the different subjects of Software Engineering to develop new programs. Among the programs currently being discussed are:

(i) BEng Software and Electronic Systems Engineering

(ii) Bachelor of Science in Systems Engineering

(iii) Bachelor of Science in Embedded Software Engineering

10.24.3 Information Technology Department

(i) Write and Start programs in Computer Graphics and Applied Information Technologies for Agriculture, Construction, Home and Office Management etc.

(ii) Promote and Recruit more qualified academic staff to boost the department in terms of grant writing and publications

(iii) Develop a research agenda for the department

(iv) To work hand in hand with the rest of the Faculty, establish MUST-ICT consultancy to provide specialised services to MUST and other organisations, to boost the income of the department.

10.24.4 Software Incubation and Innovation Unit (SIIU)

SIIU shall be at the forefront of stimulation of innovation at FCI.

The approach to stimulating innovation will be as mentioned under the unit.

110.25.1 Mitigation Measures

(i) The Faculty suggests that in order to achieve and continue to use online platforms, university management should invest heavily in and improve infrastructure. They should increase internet bandwidth and also plan to buy a new generator.

(ii) The faculty tries to improvise much as it compromises some activities.

(iii) It is hoped that once the faculty building is completed both teaching and office space will be solved with an assumption that it will be furnished.

(iv) For SIIU Lab, space has been earmarked at the new FCI building. Efforts to fast track this development and later to acquire equipment for this lab would encourage software innovations.

(v) A policy needs to be put in place that encourages SIIU and other staff at FCI to engage in commercial software development for the university.

(vi) An annual budget needs to be dedicated to innovation activities at FCI. We appreciate the budget for the annual FCI awards. However, more can be done to further support these innovations once they have been selected.

(vii) The Faculty staff continue to pray that at some point in future these challenges would be overcome.

Conclusion

The Faculty continues to work hard to ensure that there is knowledge enhancement and development for both students and staff for the growth of the University.

11. FACULTY OF APPLIED SCIENCE AND TECHNOLOGY

1.1 Introduction

The Faculty envisions itself as a hub of excellence, dedicated to delivering top-tier education and fostering research in applied, multi-disciplinary Science, and Technology, with a keen focus on community development. Aligned with Uganda's national goals and 'Vision 2040,' the Faculty strives to play a pivotal role in the advancement of Applied Science, Engineering, and Technology. Engineers have historically played a crucial role in shaping and maintaining public infrastructure, forming the bedrock of sustainable economic growth. In recognition of this historical significance, our curriculum has been meticulously crafted to adhere to the principles of training effective engineers. Engineering transcends mere technical expertise; it encompasses design, problem-solving, creativity, and effective communication and management skills. Acknowledging that the field cannot thrive in isolation, the curriculum at Mbarara University of Science and Technology (MUST) within the Faculty of Applied Science and Technology (FAST) is deliberately inter-disciplinary, encompassing fields such as development studies, business, management, computer science, health, medical science, language, communication science, mathematics, and general physical science.

MUST takes pride in its track record of providing community-oriented, multi-disciplinary education. Our unique approach emphasizes familiarity with both rural and urban systems, preparing students to engage effectively in diverse communities. Pursuing a degree in Applied Science and Technology at MUST exposes students to cutting-edge technologies and promotes sustainable technology development, especially tailored for the context of developing countries.

Our primary objective is to equip students with the education and experience necessary to excel in various fields of work. Graduates from MUST possess specialized skills that make them adaptable and versatile across sectors. This broad-based education not only benefits the graduates themselves but also contributes significantly to Uganda's progress. The new generation of MUST graduates is poised to deliver essential services, manage and enhance the country's natural resources, contribute to advancements in telecommunications, power production, transportation, manufacturing, sanitation, health, and aggregate production. In essence, MUST is committed to producing professionals who are not just academically adept but also socially responsible contributors to the nation's development.

11.1.1 Mission
To provide quality training and promote research and professional development in sustainable and community-oriented applied sciences and technology

11.1.2 Vision
"To be a centre of excellence of teaching and research in applied and multidisciplinary studies in the areas of applied science and Technology."

> "engineering transcends mere technical expertise; it encompasses design, problem-solving, creativity, and effective communication and management skills."

11.1.3 Strategic Objectives

Strategic Objectives	Actions
1. Curriculum Excellence	Strengthen existing educational programs.
	Develop and implement new curricula for Bachelor's and Master's Programs in various applied science and technology disciplines.
2. Innovative Learning Ecosystem	Enhance Teaching and Learning with a special focus on Experiential Learning.
	Cultivate Academia-Industry Partnerships for Industry Placement and recruiting industry-based Teaching Staff.
3. Research and Innovation Leadership	Spearhead the development of Research through Joint Research Programs.
	Formulate and oversee the implementation of an Innovation and Development Policy and Plans for the Faculty.
4. Human Capital Development	Build Human Resource capacity through comprehensive Planning, Management, and Development programs (MSc. & Ph.D.).
5. Financial Sustainability	Increase and diversify the Faculty's financial base through strategic grant acquisitions.
	Enhance financial stability through proposal writing and professional development courses.
6. Gender-Inclusive Education	Develop a Gender Promotion and Mainstreaming Strategy in teaching and learning.
7. Collaborative Academic Networks	Strengthen relations and collaboration between national, regional, and international academic universities specializing in Applied Science and Technology.
8. Research Agenda Implementation	Develop and oversee the implementation of a comprehensive Faculty Research Agenda.
9. Community Engagement	Initiate an Applied Science and Technology Community Outreach Programme to connect with and contribute to the broader community.
10. Professional Engineering Accreditation	Strengthen the professional development of graduate engineers through the accreditation of our Engineering Programs.

11.2 Student Numbers

11.2.1 Undergraduates

Total enrollment per class across the four years, along with the calculation of the total faculty Enrollment

Class	1st Year	2nd Year	3rd Year	4th Year	Total Enrollment
BME	11	66	57	39	173
EEE	35	90	91	63	279
PEM	9	55	62	57	183
BCE	-	18	13	11	42
CIV	38	-	-	-	38
MIE	16	-	-	-	16
Total	**109**	**229**	**223**	**159**	**731**

Faculty Total Enrollment (Population) = 731 students

The table shows the total enrollment per class across the four years, and the total enrollment for each class is calculated by summing the enrollments for each year. The final column provides the total enrollment for each class. The total faculty population is then calculated by summing up the total enrollment for all classes, resulting in a total of 731 students.

11.2.2 Post graduates

No.	Programme	Year	Enrollment	Male	Female	Code	Total Enrollment
1	Masters of Biomedical Engineering	1				MBME	**18**
2	PhD. Biomedical Engineering						
3	Total student Enrollment						**18**

In various programs disaggregated into male and female

Staff numbers disaggregated into male and female

(i) Professors
(ii) Lecturers
(iii) Teaching assistants
(iv) Non teaching staff
(v) Staffing gaps

11.3 Academic and Administrative Leadership

No.	Position	Gender	Name
1	Dean	Male	Dr. Johnes Obungoloch
2	Deputy Dean	Male	Dr. Denis Bbosa
3	HoD BME	Male	Dr. Wasswa William
4	HoD EEE	Male	John Ziine
5	HoD CVE	Female	Ms. Josephine Najjobyo
6	HoD MIE	Female	Ms. Faith Natukunda
7	HoD PEEM	Male	Mr. Patrick Kabanda

11.3.1 Staffing
Teaching and Support Staff

Senior Lecturers			
1	Dr. Johnes Obungoloch - Dean	Male	(BME)
2	Dr. Denis Bbosa - Deputy Dean	Male	(MIE)
3	Dr. Theodora Twongyirwe Mondo	Female	(MIE)
4	Dr. Twaha Senooga	Male	(EEE)
5	Dr. Farad Sagala	Male	(PEEM)
6	Mr. Wasswa William HoD BME	Male	(BME)

Teaching and Support Staff

Assistant Lecturers

1	Ms. Josephine Najjobyo (HoD CVE)	Female	(CVE)
2	Mr. Hosea Mutanda	Male	(CVE)
3	Ms. Joyce Gumushabe Kayanja	Female	(CVE)
4	Ms. Zaina Kalyankolo	Female	(EEE)
5	Mr. Galiwango Martin	Male	(EEE)
6	Ms. Kyariisima Addah	Female	(EEE)
7	Ms. PenlopeYaguma	Female	(EEE)
8	Mr. Julius Taremwa	Male	(EEE)
9	Ms. Irene Magara	Female	(EEE)
10	Mr. John Ziine (HoD EEE)	Male	(EEE)
11	Mr. Faisal Lubega	Male	(EEE)
12	Mr. Vicent Rutagngibwa	Male	(EEE)
13	Ms. Faith Natukunda (HoD MIE)	Female	(MIE)
14	Mr. Denis Igambi	Male	(MIE)
15	Mr. Silagi Wanambwa	Male	(PEEM)
16	Mr. Kabanda Patrick (HoD PEEM)	Male	(PEEM)
17	Mr. Fortunate Ogene	Male	(PEEM)
18	Mr. Lubega Rodney	Male	(PEEM)
19	Mr. Felix Atuhaire	Male	(BME)
20	Mr. Vicent Kasambula	Male	(BME)

Laboratory Technicians

21	Mr. Ivan Muhumuza (Lab Technician BME)	Male	(BME)
22	Mr. Kusiima Vian (Senior Lab Technician CVE)	Male	(CVE)
23	Mr. Ian Taremwa (Senior Lab Technician EEE)	Male	(EEE)
24	Mr. Benedicto Bukyana (Senior Lab Technician MIE)	Male	(MIE)
25	Mr. Wandera Joseph (Lab Technician EEE)	Male	(EEE)

Part-time Lecturers

26	Mr. Derrick Muloogi	Male	(PEEM/BME)
27	Dr. Ronald Kamoga	Male	(BME)
28	Mr. Tuhirirwe Mckenzie	Male	(PEEM/EEE)
29	Mr. Robert Asiimwe	Male	(EEE)
30	Mr. John Bashabe	Male	(EEE)
31	Mr. Eugene Bizimana	Male	(BME)

External service Part time Lecturers

32	Diana Kabarangira	Female	(Management Sciences)
33	Dr. Specioza Twinamasiko Development Studies	Female	(FIS Service Course)
34	Ms. Iluminat Rose	Female	(Management Sciences)
35	Dr. Sarah Nabachwa	Female	(Management Sciences)

Administration and Support Staff

36	Mr. Lukaaya Thomas Dennis	Male	Senior Administrative Assistant
37	Mr. Peter Nsubuga	Male	Finance Officer
39	Ms Kyobutungi Gaudensia	Female	Personal Secretary
40	Mr. Muhiire Maurice	Male	Office attendant
41	Mr. Joseph Akandanaho	Male	Office attendant

Staff Gender analysis in percentages

No.	Staff Category	Male	Female	Total	Male Percentage	Female Percentage	
1.		Teaching Staff	25	12	37	67.6%	32.4%
2.		Laboratory Technicians	05	00	05	100%	0.0%
3.		Part-time Lecturers	06	00	06	100%	0.0%
4.		External Service Lecturers	04	00	04	0.0%	100%
5.		Admin & Support Staff	04	01	05	80%	20%

11.3.2 Staffing Gaps and Analysis by Gender

No.	Department	Title	Approved Position	Filled Positions	Male	Female
1	Office of the Dean		14	8	7	1
2	Biomedical Engineering		32	5	5	0
3	Electrical and Electronic Engineering		32	10	6	4
4	Petroleum Engineering and Environmental Management		32	4	4	0
5	Civil Engineering		32	3	2	2
6	Mechanical Engineering		32	3	2	1
	Total		**174**	**33**	**25**	**8**

The faculty is operating at 19% staff levels which will make it impossible to fully establish Civil Engineering and Mechanical Engineering which are currently in their second years.

11.4 Teaching and Learning

11.4.1 Academic Programs
(i) Bachelor of Biomedical Engineering
(ii) Bachelor of Electrical and Electronic Engineering
(iii) Bachelor of Computer Engineering
(iv) Bachelor of Petroleum Engineering and Environmental Management
(v) Bachelor of Science in Civil Engineering
(vi) Bachelor of Science in Mechanical Engineering

11.4.2 Faculty Departments
In line with the above and MUST mission and objectives, the Faculty of Applied Science and Technology has the following departments;
(i) Department of Electrical and Electronic Engineering
(ii) Department of Biomedical Sciences and Engineering
(iii) Department of Energy, Mineral and Petroleum Studies
(iv) Department of Civil and Building Services Engineering
(v) Department of Mechanical and Industrial Engineering

(i) Student numbers
(ii) Community engagement
(iii) Innovations
(iv) Teaching and training sites
(v) Teaching equipment
(vi) Laboratory services
(vii) Quality assurance mechanisms

11.4.3 Research
The faculty is engaged in research and some of the research output for the Faculty include:

11.4.4 Publications

(i) **Campbell Washburn**, A.E., Keenan, K.E., Hu, P., Mugler III, J.P., Nayak, K.S., Webb, A.G., Obungoloch, J., Sheth, K.N., Hennig, J., Rosen, M.S. and Salameh, N., 2023. Low field MRI: A report on the 2022 ISMRM workshop. Magnetic resonance in medicine, 90(4), pp.1682-1694.

(ii) Webb, Andrew, and Johnes Obungoloch. "Five steps to make MRI scanners more affordable to the world." Nature 615, no. 7952 (2023): 391-393.

(iii) Obungoloch, Johnes, Ivan Muhumuza, Wouter Teeuwisse, Joshua Harper, Ivan Etoku, Robert Asiimwe, Patricia Tusiime et al. "On site construction of a point of care low field MRI system in Africa." NMR in Biomedicine 36, no. 7 (2023): e4917.

(iv) Anazodo, Udunna C., Jinggang J. Ng, Boaz Ehiogu, **Johnes Obungoloch**, Abiodun Fatade, Henk JMM Mutsaerts, Mario Forjaz Secca et al. "A framework for advancing sustainable magnetic resonance imaging access in Africa." NMR in Biomedicine 36, no. 3 (2023): e4846.

(v) Wanzala, Jimmy Nabende, Michael Robson Atim, and Johnes Obungoloch. "Design and Simulation of a Physician-Based Fuzzy System for Ventilator Adjustments in ARDS Patients to Ensure Lung Protection." Advances in Fuzzy Systems 2023 (2023).

(vi) Murali, S., Ding, H., Adedeji, F., Qin, C., Obungoloch, J., Asllani, I., ... & Adeleke, S. (2023). Bringing MRI to low and middle income countries: directions, challenges and potential solutions. NMR in Biomedicine, e4992.

(vii) Chibi, Moredreck, William Wasswa, Chipo Ngongoni, Ebenezer Baba, and Akpaka Kalu. "Leveraging innovation technologies to respond to malaria: a systematized literature review of emerging technologies." Malaria journal 22, no. 1 (2023): 40.

(viii) Rahmoon, Mai Atef, Gizeaddis Lamesgin Simegn, Wasswa William, and Michael A. Reiche. "Unveiling the vision: exploring the potential of image analysis in Africa." Nature Methods 20, no. 7 (2023): 979-981.

(ix) Ngongoni, Chipo Nancy, William Wasswa, and Moredreck Chibi. "Legacy of COVID-19 Innovations: Strengthening African Primary Health Care through Pandemic Innovations." Sustainability 15, no. 15 (2023): 12073.

(x) Yang, Haechan J., William Wasswa, Raymond Li, Brandon Pautler, Aidan Fry, Rajan Leung, David W. Holdsworth, and Ian A. Cunningham. "Optical resolution and MTF of a low-cost Fourier ptychography microscope using a raspberry pi computer." In Optics and Biophotonics in Low-Resource Settings X, vol. 12832, pp. 19-27. SPIE, 2024.

(xi) Al-Shboul, Tamer, Farad Sagala, and Nashaat N. Nassar. "Role of surfactants, polymers, nanoparticles, and its combination in inhibition of wax deposition and precipitation: A review." Advances in Colloid and Interface Science (2023): 102904.

(xii) Hethnawi, A., Kashif, O., Jeong, R., Sagala, F., Hashlamoun, K., Manasrah, A. D., & Nassar, N. N. (2023). Green synthesis of novel titanomagnetite nanoparticles for oil spill cleanup. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 664, 131191.

(xiii) Sagala, Farad, et al. "Formulation of Spontaneous In Situ Emulsification Using Sodium Lauryl Sulfate Grafted Nanopyroxene for Enhanced Heavy Oil Recovery in Sandstone Reservoirs." *Energy & Fuels* 37.17 (2023): 12838-12853.

(xiv) Yiga, V. A., Lubwama, M., Karemani, D., Bbosa, D., Olotu, E. B., Olupot, P. W., & Natukunda, F. (2023). Prediction of tensile strength of biochar filled polylactic acid composites via box-behnken design. Journal of Engineering Research, 100142.

(xv) Muloogi, Derick, Fortunate Ogene, Farad Sagala, Denis Bbosa, and Grace Birungi. "Novel Catalytic Conversion of Plastic Waste into Fuel Oils." Available at SSRN 4569122.

(xvi) Rutagangibwa, V., Nabaasa, E., Obungoloch, J., & Ariho, P. (2023). Analyzing Energy Consumption Patterns at Mbarara University of Science and Technology: A Case Study of the Academic Calendar Influence.

(xvii) Nnamchi, Stephen Ndubuisi, Faith Natukunda, Silagi Wanambwa, Enos Bahati Musiime, Richard Tukamuhebwa, Titus Wanazusi, and Emmanuel Ogwal. "Effects of wind speed and tropospheric height on solar power generation: Energy exploration above ground level." Energy Reports 9 (2023): 5166-5182.

11.4.5 Ongoing research

Ongoing research at the Faculty include:

(i) The MRI project by Dr. Johnes Obungoloch with a funding value of $377,000 ending in **(2022-2026)**

(ii) The Chest X-Ray project by Dr. Johnes Obungoloch with a funding value of $90,000 (2024-2025)

(iii) Renewable Energy sub-project by Dr. Johnes Obungoloch **$350,000 (2022-2027)**

(iv) The plastic recycling project by Dr. Bbosa Ugx 400,000,000 **(2022-2024)**

11.5 Growth and development of FAST

The faculty plans to grow by establishing post graduate programs in the departments of Civil Engineering, Mechanical Engineering, Energy and Mineral Studies, and Electrical and Electronics Engineering. The Faculty also plans to start short courses in Plumbing, electrical wiring, motor Vehicle Mechanics and Electronics.

11.5.1 Collaboration/ partnerships

The Faculty has both formal (MOUs) and informal (Projects) collaborations with specific projects/PIs. These are listed below:

No.	Name of Partner	Year Established	Area of Collaboration	Outcome
1	University of Calgary-Canada	2022	Petroleum Studies	Two projects running in department of Petroleum Engineering
2	Center for Renewable Energy and Energy Conservation (CREEC-Makerere)	2023	Energy Studies	Supporting the Renewable Energy Project at the Faculty
3	Yale University-USA	2023	MRI Education and Research	Support to the MRI project
4	MIT-USA	2023	Surgical Light Project	Support to the Surgical Light Project
5	Leiden University Medical Center (LUMC)-Netherlands	2018	MRI Project	Support to the MRI project
6	KULEUVEN-Belgium	2022	Renewable Energy (RE) Project	Support to the RE project

11.6 Performance on cross cutting issues

(i) Gender and Equity: The faculty tries to be sensitive in its recruitments of staff and students to take into consideration gender issues.

(ii) HIV/AIDS: The Faculty has not done much in this area but the faculty will hold some sessions in collaboration with the office of the Dean of Students.

(iii) Environment: The faculty has an environmental club and have participated in tree planting exercises. Students have also participated in the water and environment week organized by the Ministry of Water and Environment.

(iv) Covid -19 global pandemic: The Faculty still encourages hygienic practices such as washing of hands.

11.7 FAST Future Plans

The Faculty is facing our Bachelor's in Computer Engineering by 2026.
The Department of Energy and Mineral Studies plans to start a program in Petroleum and Chemical Engineering. The Faculty also needs to establish Post graduate programs in all departments to foster staff growth

12. INSTITUTE OF TROPICAL FOREST CONSERVATION

12.1 Introduction

The Institute of Tropical Forest Conservation (ITFC) is a premier Ugandan research institution working primarily for the conservation of biodiversity and sustainable management of natural resources in and around the wildlife protected areas of the Albertine Rift ecoregion – an area with significant concentration of globally unique biodiversity in Africa. The landscape faces immense human pressures ranging from poaching of wildlife, harvesting of timber, fuel wood, thatch and charcoal; oil exploration; geothermal exploration; habitat degradation and loss, including loss of habitat connectivity, grazing of livestock that cause conflict between pastoralists and large carnivores, agricultural encroachment, to urbanization among others. It is critical to establish monitoring schemes which are long lasting to provide information that can contribute to addressing the challenges.

ITFC was established in August 1991 as a semi-autonomous unit of Mbarara University of Science and Technology (MUST) by the university council. ITFC marked its 33th anniversary as part of MUST this year. The Institute started working in the montane forests of southwest Uganda (Bwindi, Echuya and Mgahinga) and later expanded its footprint to other protected areas of the central Albertine Rift ecoregion.

12.1.2 Mission
ITFC's mission is to lead in the implementation and support of conservation-oriented research, monitoring and training that strengthen the protection and management of Albertine Rift montane rainforests and biodiversity and enhance the welfare of neighbouring communities. This mission is aligned with MUST's vision, mission and goals.

12.1.3 Functions
The institute core functions are to:
(i)   Initiate and implement a range of research and monitoring projects and programmes aimed at addressing major conservation threats and challenges;
(ii) Provide research opportunities and supervision to graduate students, researchers and conservationists/ practitioners from within and without Uganda;
(iii) Offer technical support and guidance to Uganda Wildlife Authority (UWA), the National Forestry Authority (NFA), other conservation agencies and local communities in the region to ensure research results and recommendations are translated into management decisions and actions; and
(iv) Serve as a base to visiting researchers from Uganda and beyond.

12.1.4 Location
ITFC is located about 200km (four [4] hour drive depending on weather conditions and type of vehicle) away from MUST main campus, at the eastern edge of Bwindi Impenetrable National Park (BINP) in a hard to reach area of Ruhija Town Council of Rubanda District, SW Uganda. This location, miles away from MUST main campus,is sometimes a hindrance to communication on several issues between ITFC and MUST main campus.

12.1.5 Brief history
The genesis of ITFC dates back to 1983 when an ecological survey of the then Bwindi-Impenetrable Forest Reserve was carried out by Dr Thomas Butynski. His findings indicated that the forest was in dire stress and the mountain gorillas were severely threatened by the high level of illegal activities. Timber harvesting (legal and illegal), poaching of wildlife, gold mining, forest wildfires, harvesting of non-timber products and trespassing were out of control and were endangering the unique biodiversity of the forest, particularly the mountain gorillas. There was an urgent need for immediate conservation efforts in and around the forest. This sparked the interest of the World Wide Fund for Nature (WWF) to promote the conservation of mountain gorillas and their habitats in SW Uganda. In August 1986, the Impenetrable Forest Conservation Project (IFCP) was started with support mainly from WWF and USAID. The project's mission was to protect the last remaining Afromontane forests of SWUganda (Bwindi, Mgahinga and Echuya) and the remaining mountain gorilla population therein. These three montane forests are believed to have been connected until about 800 years ago when they were separated by Bakiga agriculturalists. IFCP established conservation and research at Ruhija in the Impenetrable Forest Reserve. IFCP lobbied successfully the Government of Uganda and the international community to upgrade both the Impenetrable and Mgahinga montane forests from the status of Forest Reserves to National Parks.

In August 1991, ITFC was established by IFCP as a semi-autonomous field research institute of MUST to sustain the conservation gains of IFCP. In the establishment of ITFC, it was envisaged that the field research institute would be able to mobilise research funds from the international donor community without burdening MUST substantially. This was the major reason it was made a semi-autonomous field research institute under the supervision of MUST Vice-Chancellor. In 1993, MUST and Uganda National Parks (UNP, now Uganda Wildlife Authority, UWA) – the agency that manages wildlife protected areas in Uganda – signed a Memorandum of Understanding (MoU) regarding ITFC field research station location in the Bwindi Impenetrable National Park and operations within Uganda's wildlife protected areas. This MoU has sustained thegood working relationship between ITFC and UWA for the last 31 years where ITFC's research and monitoring results have been impactful in the management and conservation of Bwindi and Mgahinga National Parks. Indeed, UWA values the various research outputs of ITFC as reflected in the various management plans of the two parks since 1994. As such, ITFC is now a major stakeholder in the conservation of biodiversity and natural resources in the Albertine Rift ecoregion.

12.1.6 Rationale for establishing ITFC as a unit of MUST

The rationale for establishing ITFC under MUST was the need for a permanent research station in the "Afromontane" rainforest which is considered the rarest and most important vegetation type for biodiversity conservation in Africa but is little studied. The montane forests are all small 'islands of nature' surrounded by some of the highest rural human population densities in Africa. The ability of isolated islands of forest to survive in the long-term, when under pressure from surrounding dense human populations that largely depend on natural resources for their livelihoods, is unknown. Having a long-term presence in such an ecosystem has an advantage in that it allows data collection overtime so that a long-term database is established. Long-term data sets are what make established field research stations very valuable places

12.2 Infrastructure and Facilities

12.2.1 Infrastructure

ITFC has permanent structures built with the support of a variety of donors. The floor space is regarded as sufficient for the current level of operations with some room for limited expansion. All the buildings are solar powered and each building has two rainwater harvesting tanks.
The buildings, their function and donor are shown in Table 31.

Table 31: ITFC buildings, their function and funder

Building	Function	Funder	Year Built
Conservation Resource Centre	Reception Library Herbarium Laboratory space 3 office rooms	The Maria GansNorbury Fund for Animals	2006
Office Block	Common area 4 office rooms	WWF	1987
Director's House	Director's residence	USAID	1990
Student, Intern and Volunteer Dormitory	Common area 3 bedrooms	USAID	1987
Rock House	Living room 2 bedrooms	USAID	1990
Store	Storage of bulky materials	USAID	1990
Researcher's House	3 semi-detached, 2 roomed houses Common area 1 visitor bedroom	USAID	2006
Ekiiko House	Living room 2 bedrooms	USAID	2005
Conservation Education Centre	Common area 3 bedrooms	USAID/Canada	1987
CEC Annex	1 bedroom Store	USAID	1989
3 Unihuts	Storage		

ITFC has six field 4WD vehicles as shown in Table 32. All the vehicles are still in fairly good running condition though they are mechanically affected because of always moving on very bad roads in a steep and rugged terrain of our work area

Table 32: ITFC vehicles, make/type, year of acquisition and owner

Vehicle Regn. #	Make/Type	Year of acquisition	Ownership	Donor	Condition
UBG473Q	Toyota Hilux Pick-Up Double Cabin	2020	ITFC	Greater Virunga Trans-Boundary Cooperation (GVTC)	Very Good
UAA960F	Toyota Land Cruiser Hard Top	2010	MUST	Max Planck Institute of Evolutionary Anthropology (MPI)	Very Good
UAB034Y	Toyota Land Cruiser Hard Top	2004	USAID	USAID	Good
UAA143Y	Toyota Prado	2000	USAID	USAID	Good
UAA241X	Toyota Hilux Pick-Up Double Cabin	1999	USAID	USAID	Good
UG0064T	Toyota Land Cruiser Hard Top	1997	Ministry of Tourism, Wildlife & Antiquities (MTWA)	The Royal Embassy of The Netherlands, Kampala	Good

12.2.1 Facilities

12.2.1.1 Herbarium
The herbarium hosts 3,251 plant specimens representing 1,321 species and 156 families. No new plant specimens were added this year as no new species were found during the field trips.

12.2.1.2 Ethnobotany garden
The ethnobotany garden was redeveloped as part of the AfDB-HEST Project. The ethnobotany garden improvement project was designed with five major components:
(i)   Renovation of the existing ethnobotany garden;
(ii) Propagation of tree seedlings (indigenous species, fruit trees, and some fast growing exotic species) that are demanded by the communities around Bwindi and beyond;
(iii) Seedling distribution, monitoring and community outreach;
(iv) As a demonstration site for propagation of rainforest trees and other species; and
(v) as a centre for ethnobotany knowledge around Bwindi for students, researchers, conservationists and other interested stakeholders

In 2024, 19,839 seedlings belonging to 25 species were propagated. Of these, 8,764 (44%) seedlings were distributed. Of the seedlings distributed, 5,424 (58%) belonged to only four tree species Entandrophragmaexcelsum (timber), Podocarpusmilinjianus (timber) Prunusafricana (timber and medicine) andPolysciasfulva(household items). Most of the distribution was done by two conservation organisations: Bwindi Mgahinga Conservation Trust (BMCT) and Max Planck Institute of Evolutionary Anthropology (MPI) which distribute the seedlings to interested members the communities adjacent Bwindi and Mgahinga National Parks in SW Uganda.
There was a huge increase (41%) in seedling distribution between 2023 and 2024. The increase is attributed resumption of tree growing after COVID-19 global pandemic disruption as well as more people who are interested in growing indigenous rainforest tree species getting to know about the ITFC ethnobotany as the only source in the region. We anticipate more demand in the near future and we are planning for it. There is also interest in particular species, especially those with medicinal and timber value. We have requested those who need particular species to place their orders in advance.

A total of 138 tree seedlings were donated in 2024 mainly to Uganda Wildlife Authority (UWA) Bwindi Mgahinga Conservation Area management as ITFC's contribution on important days which celebrated annually - World Wildlife Day on March 3, World Environment Day on June 6, World Tourism Day on September 27, and World Gorilla Day on September 24.

12.3 Mountain gorilla skeletal recovery and research

The overarching goal of this project is to assist UWA in the recovery and curation of naturally accumulated skeletons of mountain gorillas in Bwindi Impenetrable National Park as a scientific and educational resource in Uganda, and initiate new research to understand relationships between mountain gorilla skeletal biology, life history, behavioral ecology, and health. Specific aims include the following:

Capacity Building:
(i) To assist UWA in the systematic recovery of naturally accumulated skeletons (derived from natural deaths) of mountain gorillas, and other species where opportunistically collected, from BINP as a resource for research and education in Uganda.
(ii) To provide training for local staff of partner institutions in osteology, skeletal preservation and management, and skeletal research practices, to help build local capacity for long-term collections preservation and research programs to be carried out by Ugandan scientists.
(iii) Explore opportunities to use knowledge generated from the study of these skeletons to support the tourism and educational missions of our partner organizations.

Research:
(i) Establish primary data on the skeletal morphology, development, ageing and pathology of BINP mountain gorillas, which have relevance for ongoing veterinary and demographic monitoring of the population and for understanding relationships between variation in local ecology and morphological and behavioral diversity among gorillas.
(ii) Initiate sampling of fecal stable isotope variation and microanatomical studies of dental development in Bwindi gorillas, to investigate the relationship between chemical/stable isotope signatures in developing teeth and a key behavioral transition during development – dietary transitions associated with weaning.

This rare and invaluable resource is expected to generate new and unique insights into aspects of mountain gorilla developmental biology, life history and health that complement ongoing research and veterinary monitoring efforts focusing on these gorillas during life. Thus far, the skeletal materials recovered, cleaned, labeled, catalogued and stored include over 50 skeletons for mountain gorillas, 1 for chimpanzee, 3 for bush pig, 7 for duikers, 6 for other primates other than mountain gorillas, and 11 for other species of large mammals.
ITFC dedicated a small room in the office block to be used as laboratory and storage space for the skeletal project, with outdoor space for cleaning of the skeletons. Some improvements, including installation of storage cabinets, and stock necessary supplies. All newly recovered mountain gorilla skeletal specimens from BINP were transported to this site, where they were cleaned, given specimen numbers, catalogued and inventoried.

However, space is critically needed for the appropriate storage of the skeletal collections, to ensure its long term preservation and maximize its potential as an educational and scientific resource in Uganda. To this end, an architectural plan and Bill of Quantities (BoQ) for the storage house are complete. We will start construction in 2025 once we secure permission from UWA and MUST.

12.4 Staff Structure and Administration

There are three (3) categories of staff at ITFC:

(i) Permanent staff that were recruited by the University Council through its Appointments Board and are on MUST payroll. These are:

Name	Designation	Year recruited
Dennis Babaasa	Director/Lecturer	2016
Robert Bitariho	Associate Professor	2006
Alex Atuheire	Accounts Assistant	2021
Clemensia Mary Akankwasa (Ms)	Stenographer Secretary	1994
Isaiah Akandinda	Herbarium Technician	2024

It is worth reporting that Mr. Robert Barigyira, the long serving Senior Herbarium Technician (since 1995) retired from university service in April 2024. He was replaced by Mr. Isaiah Akandinda in June 2024.

(ii) Temporary contracted staff (contracted quarterly) as and when research projects are available and require their services. They largely started working with ITFC or independent researchers as volunteers on field projects and have acquired and proved to be very competent in field techniques and skills as well as data management. The contractual staff come from their homes in park-adjacent villages close to ITFC as the institute cannot afford to accommodate them or rent housing for them. Their benefits include modest medical care for themselves and immediate family members at a nearby Ruhija Health Centre II, field uniforms and 10% employer NSSF contribution. They are:

Name	Designation	Year recruited
Isaac Twinomuhangi	Research Assistant	2016
Robert Mujuni	Junior Research Assistant	2013
Florence Tukamushaba (Ms)	Secretary, Receptionist, Stores clerk, Librarian and Data entry clerk	2009

(iii) Casual workers/support staff hired mainly on a monthly basis as either porters, field assistants, drivers, camp keepers or night guards for maintenance of the infrastructure, facilities, and assistance in field data collection. Their number varies depending on what is required for the research activities at ITFC. They also come from their homes in nearby villages close to ITFC. They sign an attendance book every morning they report for work and are therefore paid depending on the number of days they have worked on a particular research project or projects.

The field support staff are arguably the closest group to wildlife on the ground and possess indigenous knowledge on the rainforests. Through capacity building and training, the support staff have become walking repositories of field knowledge and experience (citizen science).

12.5 Research and Monitoring Activities

12.5.1 Ongoing projects

Project	Donor
Theme: Increased understanding of the human dimensions in biodiversity conservation and protected area management	
Influence of Bwindi Mgahinga Conservation Trust (BMCT) on community livelihoods and conservation after 30 years of implementation of Integrated Conservation and Development (ICP) strategy.	Bwindi Mgahinga Conservation Trust (BMCT) - UGX 75 million Dr Dennis Babaasa (PI)
Theme: Increased understanding of disease transmission at the human-wildlife-livestock interface	
Impacts of rapid landscape change and biodiversity on virus host specificity	National Science Foundation (NSF) through University of California, Davis, US – USD 38,000 November 2024 – October 2025.DrDennis Babaasa (Co-PI)
Theme: Increased understanding of the ecology and conservation needs of species and their habitats	
Bwindi-Sarambwe mountain gorilla census – planned for 2025	International Gorilla Conservation Programme (IGCP) –DrDennis Babaasa (Co-PI)
Bwindi-Sarambwe Eastern chimpanzee census –planned for 2025	Jane Goodall Institute (JGI) – Dr Dennis Babaasa Co-PI April 2025
Theme: Enhance the training and supervision of graduate and undergraduate students	
Innovation for sustainability and societal relevance: Partnerships in evidence-based higher education on food systems and climate change (being implemented at FIS, MUST)	European Education and Culture Executive Agency and is being implemented at FIS, MUST. EUR 800,000 2023 to 2026.Assoc Prof Bitariho (PI)

12.5.2 Collaborative research projects

Project	Principal investigator(s)
Mountain gorilla social behaviour, population dynamics and feeding ecology	Max Planck Institute for Evolutionary Anthropology, Dept of Primatology, Germany
Skeletal recovery and research of Bwindi mountain gorillas	University of Washington, US and Max Planck Institute for Evolutionary Anthropology, Dept of Human Origins, Germany

12.5.3 Research agenda

Project	Status
Theme: Increased understanding of the human dimensions in biodiversity conservation and protected area management	
Economic value and distribution of costs and benefits of biodiversity conservation and protected areas	Searching for a potential donor
Theme: Increased understanding of the effects of climate and landscape change on biotic communities	
Predicting current and future distributions of African mammal functional diversity in Bwindi	Proposal designed in collaboration with Michigan State University, US, submitted to National Science Foundation Assoc Prof Robert Bitariho (Co-PI)
Enhancing social-ecological resilience of the East and Central African Mountain systems through scaling nature based solutions	Proposal designed in collaboration with University of York, submitted to UK Research and Innovations Fund (UKRI) Assoc Prof Robert Bitariho (Co-PI)
Effects of road proximity on rainforest bird communities in the Albertine Rift mountains Endemic BirdArea	Rejected by the British Ecological Society. To be resubmitted to another donorDr Dennis Babaasa (PI)
Regeneration and restoration in Zone 2 of Mgahinga Gorilla National Park, SW Uganda	Searching for a potential donor
Water quality of major rivers draining the Albertine Rift montane forests using macro-invertebrates and physical chemical characteristics as indicators of habitat quality	Searching for a potential donor
Theme: Increased understanding of the ecology and conservation needs of species and their habitats	
The distribution and habitat associations of restricted range species, particularly data deficient Albertine Rift endemics and globally threatened species	Proposal rejected by the British Ecological Society. To be resubmitted to another donor Dr. Dennis Babaasa (PI)
Arboreal mammals of Albertine Rift montane forests	Proposal rejected by the British Ecological Society. To be resubmitted to another donor Dr. Dennis Babaasa (PI)
Theme: Enhance the training and supervision of graduate and undergraduate students	
Norway-Uganda cooperation for advancing higher education and research for biodiversity conservation	Proposal submitted to donors, awaiting decision Dennis Babaasa and Robert Bitariho (Co-PIs)
Innovations for enhancing resilience and community empowerment: Partnerships of HEI in biodiversity conservation in the face of climate change	Proposal in preparation, to be submitted to European Education and Culture Executive Agency and to be implemented at Biology Department, MUST Dennis Babaasa and Robert Bitariho (Co-PIs)

A detailed research agenda will be presented in the ITFC Strategic Plan (2025/26 – 2029/30) that is being compiled.

12.6 Student Training

ITFC hosted the following MUST students from the Biology Department and their supervisors:
(i) Mr. Boris Atukunda (Coordinator: Dr Justine Nakintu) MSc I Field placement training February 2024
(i) Mr. Perfect Nasasira MSc II (Supervisors: Prof Grace Kagoro and Dr Raphael Wangalwa). Research project: Assessment of the medicinal potential of ferns in combating antimicrobial resistance. April 2023 – February 2024
(i) Mr. Francis Ssenkuba, MSc II and Jude Ndimulodi, BSc III (Supervisor: Dr Julius Tumusiime). Research project: Inventory of threatened odonates in two selected Afromontane forests in the Albertine Rift, western Uganda. November 2023

The following students were supervised by Dr Dennis Babaasa:

(i) Co-supervised to completion one PhD student – Emmanuel Akampurira (Ghent Univ, Belgium). Graduated in Oct 2023.
(ii) Co-supervised to completion one MSc student Gilbert Tayebwa (Kabale University). Graduated in June 2024
(iii) Supervised two BSc student's research projects (Biology Dept, MUST) to completion: Benon Ntalazi (2021/BS/239/PS) and Ayebare Mukama Taremwa (2021/BS/122/PS)
(iv) Co-supervising three MSc students (Biology NRM, MUST) Ignatious Anxious, (2023/MSc/015/PS), Abel Bataringaya Abel (2023/MSc/022/PS) and Amos Tumukunde (2023/MSc/031/PS)
(v) Acted as an internal examiner for Brian Mwijukye (2022/MSc/072/PS) Biology Dept, NRM, MUST
(vi) Was a panelist for MSc student viva voce examination Phionah Orishaba and external examiner for MSc student Loy Natukunda both from Dept of Environmental Sciences, Kabale University

The following students were supervised by Assoc Prof Robert Bitariho:

(i) Supervising 3 PhDstudents (Robert Baluku, Stephen Gumisriza and Daniel Ndihiziwe). Stephen Gumisiriza was supervised to completion and graduated. Stephen has published 2 papers from his PhD dissertation. Robert and Daniel, have both finalized their dissertation research proposals and are ready for data collection.
(ii) Served as an external examiner for 2 MSc students' dissertations Martin Golooba and Isaiah Bwire from Makerere University College of Agricultural and Environmental Science Acted as an opponent for a PhD student's thesis/dissertation Esther Kemigisha from Makerere University College of Agricultural and Environmental Science. Was an internal examiner for 2 MSc student dissertations - Upton Nuwagira and Byaruhanga Narice from Biology Dept (MUST)
(iii) Currently supervising 4 MSc students, Namicu Phiona, Amon Bazirake, Atukunda Boris and Dickson Muruhara all from Biology Dept (NRM) MUST. All the students have drafted their dissertation research

12.7 A Summary of Key Milestones achieved by ITFC

The following is a summary of ITFC's more significant accomplishments since its establishment in August 1991:

(i) Establishment of a permanent field research station of MUST with infrastructure and services
(ii) Lobbied the Uganda Government successfully to upgrade Impenetrable Forest Reserve and Animal Sanctuary and Gorilla Game Reserve/Mgahinga Forest Reserve into national parks – Bwindi Impenetrable National Park and Mgahinga Gorilla National Park in 1991
(iii) Expanding its footprint beyond southwest Uganda (Bwindi, Echuya and Mgahinga montane forests) to other protected areas of the central Albertine Rift ecoregion
(iv) Field training and supervision of graduate students (over 70 MSc/As and 25PhDs) that now hold important positions in conservation organisations/agencies and universities among others. Those employed by MUST include: Assoc Prof Robert Bitariho (ITFC/FoS), Dr Ronald Twongyeirwe (FIS), Dr. Medard Twinamatsiko (FIS),Dr Dennis Babaasa (ITFC/FoS), Dr. Bosco Nkurunungi (ITFC/FoS), DrSr Jane Yatuha (FoS), and Assoc Prof Julius Lejju Bunny (FoS). Those with UWA include Dr James Musinguziand Mr. Hillary Agaba among others.
(v) Lately, three former research project staff completed their PhD degrees and two former Research Assistants completed their MA degrees:
(vi) Dr Emmanuel Akampurira (University of Gent, Belgium) now with Uganda Wildlife Research Institute (UWRI), Katwe, Queen Elizabeth National Park
(vii) Dr Fredrick Ssali (Norwegian University of Life Sciences), now with Uganda Martyrs University (UMI), Nkozi
(viii) Dr. Badru Mugerwa (Technische Universität Berlin, Germany), now with Flora and Fauna International (FFI)
(ix) Mr. Rogers Tinkasimire (Mbarara University of Science and Technology) now with CITT MUST
(x) Mr. Isaac Twinomuhangi (Mbarara University of Science and Technology) now with ITFC.

Contribution of evidence-based information to Uganda Wildlife Authority, National Forestry Authority and other conservation agencies for management of protected areas such as:

(i) Periodic 5-6 year censuses of mountain gorillas in Bwindi since 1997 and Virunga Massif (building on censuses done since 1972) that have generated information on the population size, distribution, genetics and dynamics in relation to habitat and illegal human activities within the protected areas and is used to assess the success of conservation programmes aimed at ensuring their survival, and ensure they receive continued attention from the global conservation community and also for tourism planning. The practical and actionable results led to the protected area authorities to protect the gorillas in the wild leading to the downlisting of the mountain gorilla from the critically endangered to endangered conservation status. Protecting the gorillas helps conserve other vital flora and fauna as well

(ii) ITFC has also provided information and established a baseline for future monitoring of populations, habitats and threats to endangered species such as the forest elephant, golden cat and 27 Albertine Rift montane endemic and globally threatened bird species of Bwindi. Management action in sites where these species are restricted, such as increased and focused law enforcement, has been elicited

(iii) Information has been provided to UWA on tree species mapping, flower, fruit, and leaf phenology and long-term dynamics. These have been related to changes in climate and recovery from past human disturbances, particularly logging of the hard woods that went on for nearly 45 years throughout the park. This information is reflected in protected area management plans and was used to identify critical areas and guide management interventions to safeguard 'islands of nature' amidst increasing human pressures and changing climate.

(iv) Furthermore, ITFC has been involved in assessing Integrated Conservation and Development Projects (ICDPs) that work at the interface between the parks and people, trying to straddle social and biological issues in an effort to resolve land-use conflicts and set up sustainable natural resource harvesting systems. Data from ITFC was critical in the setting up of multiple-use zones in Bwindi and providing information on plant species that can be sustainably harvested by park adjacent local communities; evaluations and recommendations on ICD strategies that provide communities with sustainable benefits derived from the parks and sustainable agricultural programmes and on-farm substitution aimed at reducing demand for park resources. ITFC data also shows that continuous provision of community livelihood projects has progressively led to a reduction in illegal activities within the protected areas over time;

(v) ITFC evaluated human-wildlife conflict interventions and ascertained those that are successful and why and why others have failed and were opposed yet they were intended to help the communities and recommended community ownership of interventions instead of being seen as those of the organization that helped set them up.

(vi) information from ITFC is used in conservation education and awareness programmes

(vii) ITFC assessed the causes and damage caused by wildfires in Bwindi and Mgahinga National Parks. This led to the development of a fire management plan for the parks that has led to a great reduction of wildlife fires in the protected areas since the year 2000

(viii) ITFC has over 400 scientific articles in high impact peer reviewed journals, book chapters and conference proceedings that contribute to MUST rankings and disseminate research findings to a wider international audience. Some of the publications can be viewed on ITFC and MUST library websites and internet search engines

(ix) Herbarium and ethnobotany garden were established and the ethnobotany garden is now a source of seedlings of trees restricted to rainforest environments for the park-adjacent communities

(x) Having a collection of wildlife skeletal materials that are potential as a scientific and educational resource in Uganda

(xi) Acquisition of 12 hectares of land in Buhoma near Bwindi Impenetrable National Park that is now a source of income to MUST through the KFC/MUST gorilla trekking lodge and Buhoma Community Campsite and Lodge

12.8 Appendix

The following are some of the scholarly publication and technical reports produced by ITFC staff in 2023/2024:

Details of peer-reviewed publications and technical reports

Authors, year of publication	Title of the publication	Type of the publication (e.g. journal article, book chapter, conference proceedings)	Journal name or book publisher, conference name	Volume number and issue number, or ISBN
Goodfellow CK, Chusyd DE, Babaasa D, Chapman CA, Hickey JR, Mutegeki R, Omeja PA, Tumwesigye C, Wasserman MD, Wells CP, and Ting N (2024)	Elephants inhabiting two forested sites in Western Uganda exhibit contrasting patterns of density, species identity, and history of hybridization	Journal article	Oryx	Forthcoming
Bitariho R, Babaasa D and Byaruhanga A (2023)	Changes in floristic composition, diversity, and anthropogenic perturbations in an east African tropical forest	Journal article	African Journal of Ecology	Vol 61, 815-828 https://doi.org/10.1111/aje.13178
Babaasa D (2023)	Distribution and habitat associations of Albertine Rift Endemic birds	Technical report	Uganda Wildlife Authority	
Babaasa D, Bitariho R, and Byaruhanga A (in prep)	Influence of vegetation, topography and human disturbances on a bird community in a small east African montane forest	Journal article	Ostrich (proposed)	
Akampurira, E, Uzabaho, E, Bitariho, R, Moore, J. F. (2024).	First photographic evidence of the Central African Oyan in Uganda	Journal article	African Journal of Ecology	http://dx.doi.org/10.1111/aje.13343
Bischof, R, Vallejo-Vargas, A.F, Semper-Pascual, A, Schowanek, S.D, Beaudrot, L, ... Bitariho, R, Salvador, J, Mugerwa, B, Sainge M.N &Sheil, D (2024).	The moon's influence on the activity of tropical forest mammals	Journal article	Proceedings of the Royal Society B	http://dx.doi.org/10.1098/rspb.2024.0683
Mo, L, Crowther, T.W, Maynard, D.S, ... Bitariho, R,Boeckx,P, Bongers, F, Boonman, C.C.F, Bouriaud, O, ... et al (2024).	The global distribution and drivers of wood density and their impact on forest carbon stocks	Journal article	Nature Ecology & Evolution	https://doi.org/10.1038/s41559-024-02564-9
Hordijk, I, Bialic-Murphy, L, Lauber, T, Routh, D.............. Bitariho, R, Boeckx, P, Bongers, F, Bouriaud, O, Gamarra, J.G.P et al (2024)	Dominance and rarity in tree communities across the globe Patterns	Journal article	Global Ecology and Biogeography	https://doi.org/10.1111/geb.13889
Cuni-Sanchez, A, Martin, E.E................ Bitariho, R,Kayijamahe, C..................et al (2024).	Evidence of thermophilization in Afromontane forests	Journal article	Nature Communications	https://doi.org/10.1038/s41467-024-48520-w
Zou, Y, Zohner, C.M, Averill, C, ...Bitariho, R, GFBI consortium & Thomas W. Crowther (2024)	Positive feedbacks and alternative stable states in forest leaf types	Journal article	Nature Communications	https://doi.org/10.1038/s41467-024-48676-5

Authors, year of publication	Title of the publication	Type of the publication (e.g. journal article, book chapter, conference proceedings)	Journal name or book publisher, conference name	Volume number and issue number, or ISBN
Hsieh, C, Gorczynski, D, Bitariho, R, Espinosa, S, Johnson, S, Moreira Lima, M.G, Rovero, F, Salvador, J, Santos, F, Sheil, D, Beaudrot, L, (2024).	Evolutionary history and environmental variability structure contemporary tropical vertebrate communities	Journal article	Global Ecology & Biogeography	https://doi.org/10.1111/geb.13829
Eppley, T.M,Reuter, K.E, Sefczek, T.M, Tinsman, J.................Bitariho, R,Boesch, C, M. Bolt, L.M,................. Butynski, T.M, Gustavo R. Canale, G.R, et al (2024).	Tropical field stations yield high conservation return on investment,	Journal article	Conservation Letters	DOI: 10.1111/conl.13007
Ancrenaz, M, Bitariho,RSugnaseelan, S (all principal authors)- 2024	Tourism, Research and Ape Health (Chapter 3) in State of the Apes: Health and Ape Conservation	Book Chapter	Cambridge University Presss	DOI: 10.1017/9781009071727.004
Mo, L, Crowther, T.W, Maynard,D.S,.................Bitariho, R, Boeckx, P Bongers, F et al (2024)	Consistent climatic controls of global wood density among angiosperms and gymnosperms	Journal article	Research square	DOI: 10.21203/rs.3.rs-3934396/v1
Mo, L, Zohner, C.M, Reich, P.B, Liang, J, Sergio de Miguel,................ Bitariho, R, Boeckx, P, Bongers, et al (2023).	Integrated global assessment of the natural forest carbon potential	Journal article	Nature	DOI: 10.1038/s41586-023-06723-z.
Ma, H, Crowther, T.W, Mo, L, Maynard, D.S............Bitariho, R, Boeckx, P, Bongers, F, Bouriaud, O, Brancalion, P.H.S,................. & Zohner, C.M (2023).	The global biogeography of tree leaf form and habit	Journal article	Nature Plants	DOI: 10.1038/s41477-023-01543-5
Chen, C, Granados, A, Brodie, A.JF,...............Bitariho, R, Espinosa, S, Grigione, M.M,...............Schuttler, S, Uduman, A,......and Burton, C (2023).	Combining camera trap surveys and IUCN range maps to improve knowledge of species distributions	Journal article	Conservation Biology	DOI: 10.1111/cobi.14221
Delavaux, C.S, Crowther, T.W, Zohner, C.M, Robmann, Thomas Lauber, T........... Bitariho, R, Boeckx, P, Bongers, F, Olivier Bouriaud, O,............... Xiuhai Zhao, X Zhou, M, Zhi-Xin Zhu, Zo-Bi, I.C & Maynard, D. S, (2023)	Author Correction: Native diversity buffers against severity of non-native tree invasions	Journal article	Nature	https://doi.org/10.1038/s41586-023-06654-9
Delavaux, C.S, Crowther, T.W, Zohner, C.M, Robmann, Thomas Lauber, T......... Bitariho, R, Boeckx, P, Bongers, F, Olivier Bouriaud, O,......... Xiuhai Zhao, X Zhou, M, Zhi-Xin Zhu, Zo-Bi, I.C & Maynard, D. S, (2023).	Native diversity buffers against severity of non-native tree invasions,	Journal article	Nature	https://doi.org/10.1038/s41586-023-06440-7

Authors, year of publication	Title of the publication	Type of the publication (e.g. journal article, book chapter, conference proceedings)	Journal name or book publisher, conference name	Volume number and issue number, or ISBN
Hsieh, C, Gorczynski, D, Bitariho, R, Espinosa, S, Johnson, S, Moreira Lima, M.G, Rovero, F, Salvador, J, Santos, F, Sheil, D, Beaudrot, L, (2024).	Evolutionary history and environmental variability structure contemporary tropical vertebrate communities	Journal article	Global Ecology & Biogeography	https://doi.org/10.1111/geb.13829
Eppley, T.M, Reuter, K.E, Sefczek, T.M, Tinsman, J.................Bitariho, R, Boesch, C, M. Bolt, L.M,................. Butynski, T.M, Gustavo R. Canale, G.R, et al (2024).	Tropical field stations yield high conservation return on investment,	Journal article	Conservation Letters	DOI: 10.1111/conl.13007
Ancrenaz, M, Bitariho,R Sugnaseelan, S (all principal authors)- 2024	Tourism, Research and Ape Health (Chapter 3) in State of the Apes: Health and Ape Conservation	Book Chapter	Cambridge University Presss	DOI: 10.1017/9781009071727.004
Mo, L, Crowther, T.W, Maynard,D.S,.................Bitariho, R, Boeckx, P Bongers, F et al (2024)	Consistent climatic controls of global wood density among angiosperms and gymnosperms	Journal article	Research square	DOI: 10.21203/rs.3.rs-3934396/v1
Mo, L, Zohner, C.M, Reich, P.B, Liang, J, Sergio de Miguel,................. Bitariho, R, Boeckx, P, Bongers, et al (2023).	Integrated global assessment of the natural forest carbon potential	Journal article	Nature	DOI: 10.1038/s41586-023-06723-z.
Ma, H, Crowther, T.W, Mo, L, Maynard, D.S............ Bitariho, R, Boeckx, P, Bongers, F, Bouriaud, O, Brancalion, P.H.S,.................. & Zohner, C.M (2023).	The global biogeography of tree leaf form and habit	Journal article	Nature Plants	DOI: 10.1038/s41477-023-01543-5
Chen, C, Granados, A, Brodie, A.JF,...............Bitariho, R, Espinosa, S, Grigione, M.M,...............Schuttler, S, Uduman, A,......and Burton, C (2023).	Combining camera trap surveys and IUCN range maps to improve knowledge of species distributions	Journal article	Conservation Biology	DOI: 10.1111/cobi.14221
Delavaux, C.S, Crowther, T.W, Zohner, C.M, Robmann, Thomas Lauber, T........... Bitariho, R, Boeckx, P, Bongers, F, Olivier Bouriaud, O,............... Xiuhai Zhao, X Zhou, M, Zhi-Xin Zhu, Zo-Bi, I.C & Maynard, D. S, (2023)	Author Correction: Native diversity buffers against severity of non-native tree invasions	Journal article	Nature	https://doi.org/10.1038/s41586-023-06654-9
Delavaux, C.S, Crowther, T.W, Zohner, C.M, Robmann, Thomas Lauber, T......... Bitariho, R, Boeckx, P, Bongers, F, Olivier Bouriaud, O,......... Xiuhai Zhao, X Zhou, M, Zhi-Xin Zhu, Zo-Bi, I.C & Maynard, D. S, (2023).	Native diversity buffers against severity of non-native tree invasions,	Journal article	Nature	https://doi.org/10.1038/s41586-023-06440-7

Authors, year of publication	Title of the publication	Type of the publication (e.g. journal article, book chapter, conference proceedings)	Journal name or book publisher, conference name	Volume number and issue number, or ISBN
Semper-Pascual, A, Sheil, D, Beaudrot, L............... Bitariho, R, Espinosa, S, Jansen, P.A.............. Uzabaho, E, Bischof, R (2023).	Occurrence dynamics of mammals in protected tropical forests respond to human presence and activities	Journal article	Nature ecology & evolution	https://doi.org/10.1038/s41559-023-02060-6
Bitariho, R, Babaasa, D,Byaruhanga, A (2023).	Changes in floristic composition, diversity, and anthropogenic perturbations in an East African tropical forest,	Journal article	African Journal of Ecology,	DOI:10.1111/aje.13178
Hordijk, I, Maynard, D. S, Hart, S. P, Lidong, M, Steege, H, Liang, J.............Bitariho, R, Boeckx, P, Bongers, F, Bouriaud, O, Pedro H. S. Brancalion, P.H.S, et al (2023).	Evenness mediates the global relationship between forest productivity and richness,	Journal article	Journal of Ecology,	DOI: 10.1111/1365-2745.14098
Bugabo, S. G., Bitariho, R&Twinamatsiko, M. (2023).	Is Fair Benefit Sharing a Reality or A Fallacy? Implications for Effective Collaborative Forest Management at Echuya Central Forest Reserve, SW Uganda	Journal article	East African Journal of Forestry and Agroforestry,	https://doi.org/10.37284/eaj-fa.6.1.1083
Ssali F and Sheil D (2023)	Seasonality in the equatorial tropics: Flower, fruit, and leaf phenology of montane trees in the highlands of southwest Uganda	Journal article	Biotropica	DOI: 10.1111/btp.13219
Ssali F, Mugerwa B, van Heist M, Sheil D, Kirunda B, Musicante M, Seimon A, and Halloy S (2023)	Plant diversity and composition vary with elevation on two equatorial high mountains in Uganda: baselines for assessing the influence of climate change	Journal article	Alpine Botany	https://doi.org/10.1007/s00035-023-00301-9
Akampurira, E. (2023)	Understanding conservation conflicts in Uganda: A political ecology of memory approach	Journal article	Conservation and Society	21(3): 177-187
Akampurira, E. and E. Marijnen (2024)	The politics of mourning in conservation conflicts: The (un) grievability of life and less-than-human geographies.	Journal article	Political Geography	https://doi.org/10.1016/j.pol-geo.2023.103031

13. THE MATERNAL NEWBORN AND CHILD HEALTH INSTITUTE

13.1 Executive Summary

The Department of Maternal Newborn and Child Health Research was established as a result of structural changes at the university in March 2024. The department continued to undertake a number of health promotion and research initiatives in Bushenyi, Rubirizi, Ntungamo, Mbarara, Buhweju, and Rubirizi districts, which were already underway through the Institute of Maternal Newborn and Child Health. Additionally, the department continued to support research activities such as MicroResearch projects, Digital Storytelling, and Global Health Field School initiatives. The Healthy Adolescents and Young People Initiative organized a highly successful dissemination symposium that was very well attended. This has been made possible with the support of various collaborators and partners at different levels.

13.1.2 Sexual Reproductive Health and Rights Initiative

Background:

The Healthy Adolescents and Young People (HAY!) initiative aimed to improve the health of adolescents and young people (AY), with a focus on sexual and reproductive health and rights (SRHR). The project sought to enhance the readiness of key systems, including communities, Village Health Teams (VHTs), health and education providers, and District health leaders, to offer AY-friendly, gender-sensitive services. It also aimed to promote healthy practices and develop a scalable model for AY programming. Funded by Global Affairs Canada (2020-2024), the initiative was implemented by Mbarara University of Science and Technology, the University of Calgary, and local districts (Bushenyi and Rubirizi). The project targeted approximately 228,000 young people (50% female), with the ultimate goal of improving SRHR, especially for women and girls.

13.1.3 Key achievements

The HAY! initiative significantly improved adolescent and young people (AY) sexual and reproductive health (SRH) services, achieving a 70% increase in family planning visits and maintaining stable antenatal care numbers despite a growing female population. Key achievements included the establishment of AY-friendly spaces in health facilities, improved local health authorities' readiness, and the launch of innovative SRHR initiatives. Community engagement grew, with a 95% increase in AY contact with health facilities and strong support for AY wellness. HAY! gained national recognition as a model for community-based AY SRHR programming, supported by senior officials and contributions to national guidelines. The initiative promoted localization, accountability, and cultural shifts in attitudes towards AY SRHR, emphasizing the role of Village Health Teams and AY leadership in ensuring sustainable health outcomes.

The government introduced a policy to retain pregnant girls and young mothers in school, but the guidelines lacked specific implementation details. The HAY! team worked with government secondary schools to address challenges faced by young mothers in completing their education. This led to increased multi-sectoral collaboration, with District Education Officers and school Headmasters partnering with students and families to reduce school absenteeism and support young mothers in finishing their education. These efforts aim to empower young mothers with the knowledge and skills for economic independence, challenge traditional gender roles, reduce stigma around teenage pregnancy, and improve outcomes for their children, creating a positive cycle that benefits mothers, families, and communities.

13.1.4 MicroResearchProgramme

MicroResearch, developed at Mbarara University in Uganda in 2008, now operates in 11 countries. It aims to enhance the research capacity of local healthcare professionals to develop evidence-based solutions tailored to local health issues, culture, and resources. The program begins with a two-week workshop where teams create a community-focused research proposal. Presentation on the last day of the training, teams can apply for grants (CAD$1500 to $2000) and undergo international peer review with support from coaches. The program spans 18–24 months. As well, the Department of Maternal Newborn and Child Health coordinates the Eastern Africa hub.

A key challenge has been high clearance fees, though the MR at MUST only pay a $50 fee, which is appreciated.

13.1.5 Special Needs

The Special Needs Program, established in 2006, supports children, adolescents, and women with special health and social needs, focusing on vulnerable populations. It provides various forms of assistance, including health information, community support, transportation to healthcare services, access to medical care, nutrition rehabilitation, and social support. The program serves clients across six districts—Bushenyi, Rubirizi, Mbarara, Ntungamo, Rwampara, Buhweju, and Toto Ward at Mbarara Regional Referral Hospital. Funding is provided by Canadian Pediatric Society, and other individual donors through University of Calgary.

13.1.6 Staffing

Name	Gender	Title	Status
Prof. Jerome Kabakyenga	Male	Director	Full time up to March 2024
Dr. Hamson Kanyesigye	Male	Deputy Chief Research Officer	From March 2024
Ms. Teddy Kyomuhangi	Female	Senior Program Manager	Contract, Project based
Ms. Asasira Shina	Female	HAY! Accounts Assistant	Contract ended and now is on part time basis
Ms. Kyokushaba Clare	Female	HAY! Assistant Project Manager	Contract ended in September, now on part time basis
Mr. Mutatina Robens	Male	HAY! Community Health Officer/Digital Story Coordinator	Contract, Project based
Mercy Muhwezi	Female	HAY! Project Finance Officer	Contract ended in September 2024
Florence	Female	Cleaner	Contract, Project based

13.1.7 Digital storytelling program

The program, launched in 2019 with funding from Wellcome Trust (UK), later received support from CanWach through the University of Calgary. This support facilitated the training of 10 digital story facilitators from various faculties at MUST, the development of a curriculum, and the creation of a catalogue of digital stories. The methodology was extended to MicroResearch sites in Eastern Africa. In Uganda, the Ministry of Health adapted the methodology to improve health promotion, particularly in adolescent health.

13.2 Research Output

13.2.1 MicroResearch Activities

13.2.2 MicroResearch Training

The 16th MicroResearch (MR) training program for the Maternal, Newborn and Child Health Department site at Mbarara University of Science and Technology (MUST) was held virtually from January 29 – February 9, 2024.The class comprised of 29 participants from multiple sites in Uganda, Kenya, and Democratic Republic of Congo with coaches and co-teachers in Mbarara and in Canada. (Refer to: http://www.microresearch.ca/)

13.2.3 MicroResearch forum

MicroResearch forum for this year took place on 16th and 17th of October 2024. The morning sessions of small group discussions were physical at Kenya Medical Training College and MUST. MUST hosted participants from Mildmay, Ankole Western University, Kabale University, Mubende Hospital, Uganda National Council of Science and Technology, MUST team and MicroResearch Canada. There were online afternoon sessions and over 180 participants participated. The physical sessions featured opening and closing remarks from MUST representatives, including the DVC-AA, AR, University Secretary, and DVC-FA, who also served as a panelist.

Participants after the MicroResearch Forum

13.2.4 MicroResearch Hub Activities

MUST MR Hub Coordination office has continued to provide mentorship and coaching to the rest of the sites in Africa (Malawi, Rwanda, Tanzania, Kenya, Ghana and Uganda). Stories from each site have been captured and loaded on MR website for us to learn from each other.

13.2.5 Active Micro Research Projects in 2024

There are twenty-seven active research studies at different levels. See details in the table below: Appendix I

13.2.6 Publications, Abstracts and Academic Conference Presentations

Joan Abaatyo at al.2024, Generalized anxiety disorder, major depressive disorder and their relationships with resilience and professional quality of life submitted to BMC public Health -responding to reviewers' comments. Publication Psychological distress among healthcare professionals in southwestern Uganda following Ebola Virus Disease outbreak to BMC psychiatry, https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-024-05922-w

13.3 Outreach Activities

13.3.1 Special Needs Program

For over 20 years, the Institute of Maternal Newborn and Child health through Healthy Child Uganda has extended support to vulnerable children, adolescents and mothers with health needs in South Western Uganda. Support extended to these clients range from information, connecting them to area Village Health Teams (VHTs) who mobilize local support, connecting them to health facilities for care or paying transport and sometimes medical bills. The long-standing collaboration between Mbarara Regional Referral Hospital where most of the clients are referred and the Canadian Pediatric Society (CPS) which provides resources has made this program possible. During this reporting period, 9 (5F and 2M) clients have benefited from the special needs support. This included health care support and school fees support. Also, the program has continued to support the department of paediatrics and child health of Mbarara Regional Referral Hospital. This year, the department was supported with medical supplies and other needs such as formula milk and pampers; total support has been 2,850,000 (UGX).

13.3.2 Digital Storytelling (DST)

Support to Eastern Africa MR sites

In January and May, 2024, the Department of Maternal Newborn and Child Health Research through Healthy Child Uganda in partnership with MicroResearch (MR) International, and the University of Calgary, conducted two Digital Storytelling (DST) training workshops for Eastern Africa MR sites. The event brought together 13 representatives from seven MR sites of: Malawi, Tanzania, Kenya, Rwanda, and Uganda. Sites that benefited from this training include, Kamuzu University of Health Sciences - Malawi, Tanzanian Training Centre for

Malawi team attending a DST workshop at HCU

Handing over DST equipment to MR East Africa sites

International Health (TTCIH), Kenya Medical Training College (KMTC), Kabarak University – Kenya, Meru University of Science and Technology – Kenya, University Teaching Hospital of Kigali, Rwanda and MildMay – Uganda.

Out of 6 sites, two were selected to advance to another level and therefore they were taken through the DST facilitation process as well as supported to create their first Digital Stories as part of the learning process. They too a comprehensive set of tools to facilitate the creation and dissemination of Digital Stories. The equipment package included a computer, voice recorder, headphone splitter, portable external hard drive, waterproof hard case, Bluetooth speaker, mini projector, and two headphones.

MoH adolescent health and health promotion team at HCU after a workshop

Creation of MoH Adolescent Health Digital Stories session

Creation of Digital Stories for MoH

The Department through Healthy Child Uganda in partnership with the Ministry of Health (MoH), successfully organized three workshops aimed at creating impactful digital stories to support adolescent health campaigns across Uganda. A total of 14 storytellers (6 males and 8 females) from diverse regions, including Karamoja, Western, Central, Northern, and Eastern Uganda, participated in these workshops. The stories align with MoH's health promotion priorities and are set to foster dialogue and action on adolescent health needs nationwide. As part of the MoH Digital Story Creation Workshops, five Ministry of Health (MoH) staff from the Health Promotion Division received an in-depth orientation on the Digital Storytelling (DST) methodology.

Digital story teller from different regions of the country together with MoH representatives

DST TOT for MoH

During this period, we also held a training workshop for national trainers about the use/sharing of Digital stories to trigger engagement and action during health promotion campaigns. This training benefited a total of 15 District Health educators from Kaberamaido, Bundibugyo, Kumi, Busia, Bulambuli, Isingiro, Alebtong, Kisoro, Gulu, Zombo, Namayingo, Kalangala, Bugiri, Amuria and Adjumani District. These were joined by 3 senior officials from the Ministry of Health. Below is the activity photo

DST Methodology showcasing

The Department participated in the 3rd National Health Promotion and Disease Prevention Conference that was organized by the Ministry of Health. The conference brought together stakeholders from across the country to share knowledge on strengthening health systems for disease prevention. We exhibited our experience with DST in Bushenyi and Rubirizi districts during implementation of HAY! Initiative.

Sharing of Digital Stories at the 3rd National Health Promotion and Disease prevention conference

Crafting Digital Stories for the Canada Hockey Olympic Event

The MUST DST team participated in the creation of two Digital Stories about the Hockey experience of young female adolescents in rural South Western Uganda. These stories targeted exploring the transformative effect of hockey in shaping the lives of players beyond the pitch. The stories were captured from Bweranyangi Girls SS Hockey team in Bushenyi district for Canadian 2024 WickFest held from November 28th – December 1st.

MUST DST facilitators leading a workshop in Malawi

Mentorship, coaching and supporting to Malawi site:

The MUST DST team participated in a three days story creation workshop in Malawi in which 6 stories were created. The Department will continue to support the team through online engagements. This mentorship to other sites provides an opportunity for more practice to the MUST team.

Development of DST Facilitator guide.

The Department has continued to review and pre-test the DST facilitators' training guide through various engagements with the Canadian coach and the local workshops that have been held. The guide is expected to be ready by mid next year.

13.3.3 Scaling up Mama Toto for Sexual Reproductive Health

13.3.3.1 Dissemination of HAY! Results

Since 2020, the Institute of Maternal Newborn and Child Health, now known as the Department of Maternal Newborn and Child Health Research, has been implementing the Healthy Adolescents and Young People Initiative (HAY!) in Bushenyi and Rubirizi through its community engagement program, Healthy Child Uganda. The initiative conducted an endline study in late 2023 and early 2024. The results were disseminated at various levels, including at the community, district, and international levels, with presentations at a symposium (17th April) and field excursion in April 2024. The symposium was attended by 160 participants (69 men) from Tanzania, Malawi, Kenya, Canada, and Uganda, including guests from the Ministries of Health and Education, as well as national and local implementing partners and local government representatives. A field excursion on April 18th allowed participants to engage with communities, schools, and health facilities for hands-on experience.

HAY! Symposium participants

13.3.3.2 HAY! Policy Influence

The Ministry of Health used lessons from the HAY! Initiative to inform the development of national policy documents, including the school health standard guidelines and the Adolescent Health Implementation Plan. A team of 12 Ministry experts reviewed adolescent health materials, which were pre-tested in Mbarara. The HAY! Initiative also supported the printing of 500 copies of materials on topics like life skills and HIV/AIDS, among others for distribution to schools. Additionally, the Ministry is scaling up the use of digital stories for health promotion, with 14 Adolescent Health Digital Stories created, reviewed, and submitted for final approval.

13.3.3.3 Showcasing of HAY!

Hosting Ministry Decision makers

In July 2024, the HAY! Initiative hosted key government officials: Dr. Charles Olaro, Director of Clinical Services at MoH (11th–12th July); Dr. Mugenyi Cleophus, Commissioner for Basic Education at MoE (10th–11th July); and Dr. Angella Nakafero, Commissioner for Women Affairs at the Ministry of Gender, Labour, and Social Development (19th July). Policy discussions from these engagements included scaling up HAY! in all schools, extending headteacher Zoom meetings across the southwestern region, encouraging MoE to organize school visits to HAY! sites, and coordinating a visit by the Permanent Secretary at MoH and Gender.

Commissioner Ministry of Gender Visiting HAY! sites

Dr. Olaro Charles MoH Visiting HAY! sites

Showcasing HAY! at MUST Career faire

We hosted guests from the Uganda Civil Aviation Authority, Centenary Bank, Diamond Trust Bank (DTB), Ndejje University, and Bishop Stuart University. Dignitaries included Hon. Francis Mwebesa, the State Minister of Trade, Industry, and Cooperatives; Dr. Silver Mugisha, Managing Director of the National Water and Sewerage Corporation; Mr. Godfrey Ssebana, CEO of DTB; and Dr. Jane Kengeya Kayondo, who runs soft skills training for adolescents and young people in Entebbe. All these dignitaries received hay packages.

HAY! showcasing at MUST Career faire

HAY! sustainability phase:

In the past year, districts have made significant progress in implementing HAY! initiatives across schools, health facilities, and communities. Key activities included the establishment of more AY spaces, the display of HAY! messages in various health facility areas beyond AY spaces, and the integration of AY-specific needs into health outreach programs. Additionally, AY community camps continued to run successfully. Bio-annual review meetings have remained a regular feature at various levels, contributing to ongoing planning and responsiveness to the health needs of adolescents and youth (AY).

13.3.4 Lessons Learned

Key lessons from the HAY! initiative highlights the transformative adaptations required by the COVID-19 pandemic, including a shift to virtual engagement and reduced international travel. This change improved stakeholder collaboration, project management efficiency, and empowered the Ugandan teams, fostering innovation through activities like radio shows and online engagement. Productive stakeholder engagement and transparency were crucial in navigating a conservative adolescent health policy environment, alongside the development of a curriculum addressing sensitive adolescent topics to build trust. A strengths-based approach emphasized youth potential and garnered community support, while multi sectoral engagement proved essential for effective adolescent health programming. These lessons will inform future initiatives, enhancing sustainability and impact in adolescent and youth sexual and reproductive health.

13.3.5 Best Practices

Best practices in AYSRHR programming included comprehensive national and district stakeholder mapping to improve multi sectoral engagement and collaboration. A structured orientation phase motivates participants and encourages immediate action. Digital storytelling (DST) has been effective in fostering open discussions on sensitive topics, empowering communities through shared narratives. Implementing evidence-based strategies and involving a wide range of stakeholders early was crucial for addressing complex health issues. Beneficiary-driven actions that leverage local insights and resources, along with using existing structures, ensure sustainability. A comprehensive wellness curriculum, locally developed, consistent messaging for all levels of implementation, and interactive training methods enhance engagement and skill development, supporting community health promotion and behavior change.

13.3.6 Next Steps

Next steps for the HAY! initiative involves accelerating the implementation of Uganda's National Adolescent Health Implementation Plan (2024-2028) in partnership with government line ministries to improve adolescent access to sexual and reproductive health services. This includes sharing 14 digital stories to raise awareness and spark discussions on adolescent health. The initiative will also continue to coordinate Zoom meetings for head teachers to strategize on improving school environments, promoting student well-being, and preventing violence. The HAY! team will continue sharing findings through publications and collaborate with the Ministry of Health to finalize and pilot the National School Health Standards. Ongoing support will be provided to Bushenyi and Rubirizi districts through follow-up meetings with key stakeholders to assess progress and share best practices.

13.4 Global health field school

In 2024, the department hosted 17 students, including 7 from Canada and 10 from FIS. Field school activities took place in Nambe and St. Andrews secondary schools in Mbarara District, focusing on improving adolescent health outcomes. Activities included setting up a Hay Club, creating safe spaces, murals, talking compounds, a vegetable garden, and an essay writing competition. The project concluded with school celebrations and an academic presentation at MUST. The program ran from June 17 to July 11. The academic presentation session was presided over by Dr. Mugyenyi Cleophas, Commissioner for Basic Education, Ministry of Education.

Final day of the 2024 Field School at HCU training facility, presentations

13.5 Collaboration and Partnerships

Partner	Year established	Area of Collaboration	Outcome
University of Calgary/CPS	2002	Fundraising for research, community program implementation, program evaluation. All for knowledge translation.	A network of over 5000 VHTS that promote MNCH interventions. Several research publications involving MUST staff and research studies as mentioned in the report such as studies funded by IDRC (www.healthychilduganda.org)
Dalhousie University/IWK	2008	Micro Research for faculty capacity building	15 publications where MUST faculty are primary authors. Since 2008, more than 250 faculty staff have been trained. Teams of MUST faculty MR facilitators, coaches, reviewers and mentors have been developed. General research capacity development among MUST staff. Established a MR regional Hub which is hosted by IMNCH
Global Affairs Canada-GAC	Grant proposal was submitted in May 2018	Scaling Up Mama Toto for Sexual Reproductive Health & Rights in SW Uganda	$1.38 million Canadian dollar project grant awarded; 2020-2024.

New Collaborations:

(i)   The Department of Maternal Newborn and Child Health Research is working to expand its MR program to the Uganda Prisons Service. An inaugural meeting took place on December 3rd at the Uganda Prisons Headquarters in Kampala, where the department, along with the Deputy Vice Chancellor for Finance at MUST, met with the Uganda Prisons Research Directorate. Prior to the meeting, three prison officers attended the MR forum to learn more about the program. Discussions are ongoing regarding the signing of a Memorandum of Understanding (MOU), with MR International also involved in the collaboration.

(ii) The Department through University of Calgary has established a collaboration with Alberta Children's Hospital Research Institute (ACHRI) to enhance joint grant applications, peer-review, researcher network development, knowledge sharing/seminar series/meetings, publications.

13.6 Appendices

13.6.1 Active Micro Research Projects 2024

N	Name of PI	Project Title	Update
1	Mutatina Robens	What are the psycho –social challenges of caregivers of children with disabilities at Ruharo Hospital In Mbarara District?	draft manuscript
2	Ayebare David	Factors influencing cervical cancer screening in Sheema District	He is in the process of responding to reviewers comments
3	Beatrice Akello/ Dr. Tumuhimbise Manasseh	Barriers to complementary feeding among children below 2 years in Gweri sub county Soroti district	draft manuscript
4	Dr Anthony Makhoba	modelling BCG birth does vaccination program for improved HEP B control in Uganda	Still working on reviewers' comments to submit to another journal
5	Caroline Natuhwera	Menstrual Issues: Exploring knowledge, experiences and challenges in handling menstruation among adolescents with disabilities, a qualitative study	Working on reviewer's feed-back to submit to another journal
6	Dr. Timothy Nduhukire	Childhood obesity: Prevalence and associated factors among primary school going children in Mbarara Municipality	Manuscript writing
7	Najjingo Elizabeth	Factors That Influence False Tooth Extraction Among Children Below Two Years In Isingiro District:	finalising manuscript
8	Agatha Nshabohurira	What are the factors affecting uptake of DPT3 among children of 16 weeks-12 months of age at Rugazi HC IV Rubirizi District?	Manuscript writing
9	Kyogalla Stella	What factors are associated with early discharge of preterm babies attending MRRH and HICH?	Completed data collection
10	Elizabeth Kemigisha,	Voices of young adolescents in schools regarding the COVID 19 pandemic and prevention measures: A qualitative study in South Western Uganda using a mailbox technique	Manuscript writing
11	Ayebare David	"Determinants of Intimate Partner Violence Disclosure among Pregnant Women in Forcibly Displaced Settlements during Covid -19 Pandemic in Kasese District"	Draft manuscript
12	Kemigisha Elizabeth	Evaluation of a short menstrual hygiene training among adolescent girls in Nakivale refugee settlement'	Manuscript writing
13	Abaasa Catherine	KT perspectives on factors underlying the persistent malnutrition of Children aged 0-59 months in southwestern Uganda	Submitted abstract to BMC public health, feedback pending
14	Caroline Natuhwera	KT on Menstrual Issues: Exploring knowledge, experiences and challenges in handling menstruation among adolescents with disabilities, a qualitative study	Draft manuscript
15	Nimusiima Evas	Male involvement in Menstruation and Menstrual Health and Hygiene in Southwestern Uganda	Manuscript writing
16	Dr BivesMutume	What are the factors influencing relapse among patients with severe mental disorders at KIU-TH mental and psychiatry ward?	Data collection completed

17	Esther Beebwa	The role of community health nursing in identifying needs of women and children under five years in Katete, Mbarara, Uganda	KT level, funds delayed from MR Canada
18	Alain Favina	Preparedness of private health workers in Mbarara City about identifying and managing Ebola outbreaks	Data collection completed
19	Dr. Tuhairwe Richard,	Knowledge and Attitude of University Students towards the Use of Telemedicine to Access Sexual and Reproductive Health Services: A Case of Mbarara University of Science and Technology in Uganda	Data analysis
20	Joan Abaatyo	Psychological distress and its associated factors among health workers in south western uganda following ebola virus disease outbreak	Manuscript. Generalized anxiety disorder, major depressive disorder and their relationships with resilience and professional quality of life submitted to BMC public Health -responding to reviewers comments. Publication Psychological distress among healthcare professionals in southwestern Uganda following Ebola Virus Disease outbreak to BMC psychiatry, https://bmcpsychiatry.biomedcentral.com/articles/10.1186/s12888-024-05922-w
21	Otim Raymond	Acceptability of Sickle Cell Trait Screening among adolescents aged 15-19 years from Ogur Sub- County Lira District Northern Uganda".	Processing REC
22	Adong Hope Grace	Experiences of Patients with Sickle Cell Disease and their Caregivers at Bundibugyo General Hospital'	Processing REC
23	Moses Muwan-guzi	Depression among pregnant teenagers receiving antenatal care from health facilities in Mbarara city, Southwestern Uganda	Data analysis
24	Dr. Bives Mu-tume	MicroResearch 'Barriers and facilitators of access of mental health services during an Ebola virus disease outbreak in Uganda'.	Data collection complete
25	Sserunkuuma Jonathan,	Readiness of health facilities to diagnose, manage and prevent the Ebola epidemic along Border districts in Southwestern Uganda	Got both MUST-REC and UNCST approval, his funds have just been transferred by MR international
26	Zainab Abdullah Abdurahman,	Prevalence and factors associated with substance use among refugees in Nakivale settlement Southwestern Uganda	Partial approval from MR Canada
27	Susan Anyango	Factors affecting well-being of Nurses and Midwives in Hoima Regional Referral Hospital	Partial approval from MR Canada
28	Ivan Mugisha	"Perceptions of blood transfusion among caregivers' of patients living with cancer at Mbarara Regional Referral Hospital"	Data collection level

13.6.2 Digital Stories

Link to 15 HAY! Digital Stories: https://drive.google.com/drive/folders/1STpj06HcS_INZLhAP6QHC-mPVM-SZAEVE?usp=sharing

13.6.1 Photo gallery

Nombe SS HAY! club members

VHT Showcasing reusable sanitary pads at the HAY! symposium

Community adolescents attending skilling government programs

Commissioner from the ministry of gender visiting Kicwamba HC III in Rubirizi district

14. DIRECTORATE OF RESEARCH AND GRADUATE TRAINING

The Directorate of Research and Graduate Training (DRGT) has continued to execute its mandate to provide a home for graduate studies, stimulating the growth of quality research and publications.

14.1 DRGT staffing

The current level of staffing at DRGT is as indicated in table below. It is definitely clear that DRGT is severely understaffed considering the amount of work we are handling. The composition of the current staffing include: one Director, one Assistant Information Technology Officer, two Records Assistants and one Office Attendant.

Gender		Critical Staffing gap
F	M	
3	2	1 Assistant Administrative Secretary 1 Senior Assistant Academic Registrar – Admissions & Records 1 Senior Assistant Academic Registrar – Graduate Training

14.2 Postgraduate Programs

The following postgraduate programs were offered during the reporting year.

A. Faculty of Business and Management Sciences
(i)   Master of Business Administration (Duration 2 yrs)
(ii)   PhD in Business Administration (3 yrs)

B. Faculty of Computing and Informatics
(iii) Postgraduate Diploma in Business Informatics (Duration 1 yr)
(iv) Postgraduate Diploma in Health Information Technology (Duration 1 yr)
(v)   Postgraduate Diploma in Information Systems (Duration 1 yr)
(vi) Master in Business Informatics (Duration 2 yrs)
(vii) Master of Science in Health Information Technology (Duration 2 yrs)
(viii)   Master of Science in Information Systems (Duration 2 yrs)
(ix) PhD in Computing by Research (3 yrs)

C. Faculty of Interdisciplinary Studies
(i)   Master of Arts in Conflict Analysis and Inclusive Development (2 yrs)
(ii)   Master of Arts in Governance and Planning (2 yrs)
(iii) Master of Arts in Development Studies (2 yrs)
(iv) PhD in Development Studies (3 yrs)

D. Faculty of Medicine
(i)   Master of Medicine in Anesthesia (3 yrs)
(ii)   Master of Medicine in Community Practice/Family Medicine (3 yrs)
(iii) Master of Medicine in Dermatology (3 yrs)
(iv) Master of Medicine in Ear, Nose and Throat (3 yrs)
(v)   Master of Medicine in Emergency Medicine (3 yrs)
(vi) Master of Medicine in General Surgery (3 yrs)
(vii) Master of Medicine in Internal Medicine (3 yrs)
(viii)   Master of Medicine in Obstetrics/Gynecology (3 yrs)
(ix) Master of Medicine in Ophthalmology (3 yrs)
(x)   Master of Medicine in Pediatrics & Child Health (3 yrs)
(xi) Master of Medicine in Pathology (3 yrs)

(xii) Master of Medicine in Psychiatry (3 yrs)
(xiii)   Master of Medicine in Radiology (3 yrs)
(xiv)   Master of Public Health (2 yrs)
(xv) Master of Public Health with Research Ethics (2 yrs)
(xvi)   Master of Medical Laboratory Science (2 yrs)
(xvii)   Master of Science in Anatomy (2 yrs)
(xviii)   Master of Science in Biochemistry (2 yrs)
(xix)   Master of Science in Medical Microbiology (2 yrs)
(xx) Master of Science in Pharmacology (2 yrs)
(xxi)   Master of Science in Physiology (2 yrs)
(xxii)   Master of Pharmacy (Clinical Pharmacy) (2 yrs)
(xxiii)   Master of Science in Pharmacognosy & Natural Medicine Science (2 yrs)
(xxiv)   Master of Science in Pharmaceutical Analysis (2 yrs)
(xxv)   Master of Nursing Science in Critical Care (2 yrs)
(xxvi)   Master of Nursing Science in Community Midwifery & Reproductive Health (2 yrs)
(xxvii)   Master of Nursing Science in Mental Health Nursing (2 yrs)
(xxviii)   Master of Nursing Science in Pediatric Clinical Nursing (2 yrs)
(xxix)   PhD in Medicine (3 yrs)

E.   Faculty of Science
(i)   Master of Education in Curriculum, Instruction and Media Studies (2 yrs)
(ii)   Master of Education in Educational Administration and Planning (2 yrs)
(iii) Master of Education in Educational Psychology (2 yrs)
(iv) Master of Science in Biology (Natural Resources' Ecology, Management & Conservation) (2 yrs).
(v)   Master of Science in Biology (Microbiology and Parasitology) (2 yrs)
(vi) Master of Science in Chemistry (2 yrs)
(vii) Master of Science in Mathematics (2 yrs)
(viii)   Master of Science in Physics (2 yrs)
(ix) PhD in Biology (3 yrs)
(x)   PhD in Chemistry (3 yrs)
(xi) PhD in Physics (3 yrs)
(xii) PhD in Mathematics (3 yrs)
(xiii)   PhD in Curriculum and Media Studies (3 yrs)
(xiv)   PhD in Educational Administration and Planning (3 yrs)
(xv) PhD in Psychology (3 yrs)

F.   Faculty of Applied Science and Technology
(i)   Master of Science in Biomedical Engineering (2 yrs)
(ii)   PhD in Biomedical Engineering (3 yrs)

14.2.1 Admission of Postgraduate Students

A total of 830 eligible applicants were admitted onto the various masters and Doctoral programs (see Table below) during the year 2024.

Admitted Students for Academic Year 2024/2025

S/N	Program Title	Number
Faculty of Applied Science and Technology		
1	Master of Science in Biomedical Engineering	19
2	Doctor of Philosophy in Biomedical Engineering	1
Sub - Total		20
Faculty of Business and Management Sciences		
1	Master of Business Administration	89
2	Doctor of Philosophy in Business Administration	9
3	Doctor of Philosophy in Business Administration (MUST-UTAMU)	1
		99
Faculty of Computing and Informatics		
1	Master of Science in Health Information Technology	24
2	Master of Science in Information Systems	66
3	Doctor of Philosophy in Computing by Research	6
Sub - Total		96
Faculty of Interdisciplinary Studies		
1	Master of Arts in Development Studies	32
2	Master of Arts in Peace and Conflict Studies	4
4	Doctor of Philosophy in Development Studies	14
Sub - Total		50
Faculty of Medicine		
1	Master of Medicine in Anaesthesia	6
2	Master of Medicine in Dermatology	8
3	Master of Medicine in Ear, Nose & Throat	5
4	Master of Medicine in Emergency Medicine	8
5	Master of Medicine in Community Practice/Family Medicine	1
6	Master of Medicine in General Surgery	17
7	Master of Medicine in Internal Medicine	7
8	Master of Medical Laboratory Science	29
9	Master of Medicine in Ophthalmology	8
10	Master of Medicine in Obstetrics and Gynaecology	18
11	Master of Medicine in Pathology	5
12	Master of Medicine in Paediatrics and Child Health	13
13	Master of Medicine in Psychiatry	10
14	Master of Medicine in Radiology	4
15	Master of Nursing Science in Critical Care Nursing	4
16	Master of Nursing Science - Comm. Mid. and Reproductive Health	6
17	Master of Nursing Science - Mental Health Nursing	4
18	Master of Nursing Science - Paediatric Clinical Nursing	14

19	Master of Science in Pharmaceutical Analysis	21
21	Master of Public Health	43
22	Master of Science in Anatomy	4
23	Master of Science in Biochemistry	11
24	Master of Science in Medical Microbiology	15
25	Master of Science in Pharmacology	10
26	Master of Science in Physiology	7
27	Doctor of Philosophy in Medicine	12
Sub - Total		290
Faculty of Science		
1	Master of Education in Educational Administration and Planning	18
2	Master of Education in Curriculum Instruction and Media Studies	12
3	Master of Education in Educational Psychology	7
4	Master of Science in Chemistry	45
5	Master of Science in Mathematics	10
6	Master of Science in Physics	26
7	Master of Science in Biology (Microbiology and Parasitology)	74
8	Master of Science in Biology (Natural Resources Ecology, Management and Conservation)	66
9	Doctor of Philosophy in Biology	10
10	Doctor of Philosophy in Chemistry	1
11	Doctor of Philosophy in Mathematics	1
12	Doctor of Philosophy in Physics	1
13	Doctor of Philosophy in Curriculum Studies	2
14	Doctor of Philosophy in Educational Administration and Planning	1
15	Doctor of Philosophy in Educational Psychology	1
Sub - Total		275
GRAND TOTAL		830

14.3.2 Registration

Registration is carried out for admitted students at the time of reporting. The first week of the academic year was dedicated to registration, although the exercise went on for three weeks. Registration allows students to access university facilities/services. During the exercise, students presented: i) Admission letter; ii) Original academic documents and certified copies of each, iii) National Identity Card/Passport, iv) Birth Certificate, and v) evidence of Comprehensive life Assurance cover for international students.

14.3.3 Student Orientation

Orientation is meant to bring students together to connect among the different courses as well as staff representing the various stakeholders. We believe that orientation strengthens the bond between students and the institution. The general orientation that was attended by 150 students was held on 6th September 2024 at DRGT gardens. Thereafter, specific orientation sessions were held for students studying over the weekend in the Faculty of Interdisciplinary Studies, Faculty of Business and Management Science as well as Faculty of Computing and Informatics.

1.4.3.4 Coordination and Presentation of Student Marks

The following students were presented to the Examination Committee of Senate and Senate in preparation for the 31st graduation ceremony held on 19th October 2024. In addition, several continuing students were presented and promoted within their respective disciplines.

Postgraduates who graduated on 19th Oct. 2024 by Faculty and Program

Faculty	Program Category	Total
Faculty of Medicine	Masters	118
	PhD	5
Faculty of Science	Masters	18
	PhD	4
Faculty of Business & Mgt Science	Masters	34
	PhD	1
Faculty of Computing & Informatics	Masters	29
	PGD	1
	PhD	2
Faculty of Interdisciplinary Studies	Masters	11
	PhD	4
Total		**227**

14.3.5 Funding for Postgraduate Students

All postgraduate programs are privately sponsored. Generally, the majority of the students fund themselves (including Tuition, Functional fees and research). However, some students who are lucky may get scholarships from various national and international agencies. Overtime we have noted that the funding agencies are often interested in specific disciplines guided by their policies. Below are some of the funding agencies that supported the students during the reporting year.

A. East African Community (EAC) / Inter-University Council for East Africa (IUCEA)

The East African Community (EAC) Scholarship Program which is an initiative by the EAC, the Inter-University Council for East Africa (IUCEA) and German Development Bank-KFW since the academic year 2019/2020 has been funding students. The program is now winding up the first phase of funding the students. A total of 17 students from East African Countries including Kenya, Tanzania, Rwanda and South Sudan were funded within the disciplines of Biology, Chemistry and Medical Laboratory Science at masters' level. Last year, the program sponsored the students listed in the table below. Only 02 out of 17 scholars abandoned their programs due to non-academic reasons with one getting a new job at home (Tanzania) while the other returned to Rwanda to deliver a baby.

3rd intake (2021/2022)

S/N	Reg. #	Nationality	Program	Status
1	2021/MSc/053/PS	Kenya	MSc. Chemistry	Graduated
2	2021/MMLS/016/PS	Kenya	Master of Med. Lab. Sci.	Graduated
3	2021/MSc/051/PS	South Sudan	MSc. Biology	Graduated
5	2021/MMLS/017/PS	South Sudan	Master of Med. Lab. Sci.	Graduated
4	2021/MSc/054/PS	Tanzania	MSc. Chemistry	Defended, to graduate in Oct. 2025

A. The German Academic Exchange Service (DAAD)

Since AY 2023/2024, DAAD has awarded scholarships to MUST students pursuing MSc. Biology (Microbiology and Parasitology) and MSc. Biology (Natural Resources Ecology, Management and Conservation) as indicated in the tables below. The scholarships are awarded to both local and international students as well as males and females.

Academic Year 2023/2024 Intake

MSc. Biology (Microbiology and Parasitology)

S/N	Name	First name	Gender	Nationality
1	Basiima	Justine	Female	Uganda
2	Chemutos	Tonny	Male	Uganda
3	Okombo	Javan Otieno	Male	Kenya
4	Juma	Rashid	Male	Tanzania
5	Segawa	Stuart	Male	Uganda
6	Mwebembezi	Tarasisio	Male	Uganda

MSc. Biology (Natural Resources Ecology, Management & Conservation)

S/N	Name	First name	Gender	In-Region
1	Ssenkuba	Francis	Male	Uganda
2	Agaba	Ronald	Male	Uganda
3	Ochieng	Jeff	Male	Kenya
4	Otieno	Don Felix	Male	Kenya
5	Barasa	Cliff Wafula	Male	Kenya
6	Nuwamanya	Herbert	Male	Uganda
7	Niwagaba	Aggrey	Male	Uganda

Academic Year 2024/2025 Intake

MSc. Biology (Microbiology and Parasitology)

S/N	Name	First name	Gender	Nationality
1	Sserwadda	Godfrey	Male	Uganda
2	Babalanda	Sam	Male	Uganda
3	Ngala	John	Male	Kenya
4	Nyanchama	Kelly	Female	Kenya
5	Garang	Gabriel Kuot	Male	South Sudan
6	Otina	Evance Omondi	Male	Kenya
7	Tumwesigye	Phiona	Female	Uganda
8	Torach	Denish	Male	Uganda
9	Akorebirungi	Lutigard	Female	Uganda

MSc. Biology (Natural Resources Ecology, Management & Conservation)

S/N	Name	First name	Gender	
1	Kato	Derrick Bukenya	Male	Uganda
2	Nimusiima	Josephine	Female	Uganda
3	Nasimiyu Mukhongo	Purity	Female	Kenya
4	Oyako	Ellyas	Male	Kenya
5	Komuhangi	Felesta	Female	Uganda
6	Kahwa Kule	Edward	Male	Uganda

B. Global Health Collaborative (GHC)/Massachusetts General Hospital (MGH)

The GHC/MGH continued to offer scholarships to masters students in the Faculty of Medicine as indicated in table below. The funding was channeled through the Kayanja Scholarships (13) Fund and the First Mile Program (43). A total of 29 students graduated in 2024 while 27 are still on their programs.

Students Supported in 2024

S/N	Program	# supported
1	Master of Medicine	23
2	Medical Laboratory Science	1
3	Anatomy	1
4	Nursing	31
	Total	**56**

C. Carnegie Corporation of New York Postdoc Fellowship Program

Makerere University in partnership with MUST, Busitema, Gulu and Kyambogo Universities won a grant from the Carnegie Corporation of New York to implement a Postdoc Fellowship program. Last year, two MUST staff from the Biology Department won the Postdoc fellowship. Within each Fellowship there was a scholarship to support a masters student in second year to complete the program. The two postdoc fellows as well as the two masters' scholarship beneficiaries successfully completed their programs.

D. The INTERACT-Africa Project

MUST is among the five partner institutions in a European Union Commission Funded intra Africa Mobility project set to fund over 50 students and PhD and Masters levels in the fields of Biology, Chemistry and Information Technology. The project focuses on conversion of organic waste into valuable Bioproducts for transitioning into environmentally sustainable economies. The project is funding 1 PhD and 6 Masters students first cohort at MUST.

14.4 Research

There were majorly two funding sources for research in the reporting year that included: 1) Internal Research Funds (from the Consolidated Fund) and 2) Donor funded research. It is important to appreciate that MUST has continued to enjoy collaboration with National and International as well as Governmental and Non-Governmental Agencies in research, service provision, capacity building and community engagement.

(i)   Internally funded projects

A total of 30 proposals were awarded internal research funds (Annex 1). The proposals were submitted by research teams of a minimum of four (4) MUST staff with mixed skill sets and disciplines including academic and non-academic staff. All teams had mixed gender as well as both junior and senior members of staff for purposes of mentorship. Staff members of Mbarara Regional Referral Hospital were eligible team members. Below are deliverables since the initiation of the internal Research Funds scheme two years ago:

Publications

- 35 publications and several manuscripts at different stages of International Journals' peer review processes.

Prototypes

(i) App to follow up Cervical Ca patients.
(ii) Model for detection of Sickle Cells.
(iii) Career Guidance App.
(iv) Home-Based Rehab App to be used in Physiotherapy.
(v) Smartphone App to detect pesticide residues in tomatoes.
(vi) Capsaicinoid-based molecule Topical Analgesics for Arthritis and Cancer patients.
(vii) MUST-Security Incident Awareness platform.
(viii) MUST-Security Incident Awareness.
(ix) Podcast platform.
(x) SIMS.

Donor funded projects at MUST Grants Office (MGO)

The MGO portfolio fluctuated at about 100 projects during the year. The list of projects is shown in Annex 2.

14.4.1 Research Proposal Review Processes at MUST

(i) Faculty Research Committees
All Faculties have functional Faculty Research Committees (FRCs) that consider student proposals forwarded to them through the line Departments. The proposals considered by FRCs are those developed for academic awards. FRCs recommend the proposals to the MUST Research Ethics Committee for further consideration.

(ii) MUST Research Ethics Committee (MUST REC)
This is the Research Ethics Committee of Mbarara University of Science and Technology. The Committee's primary function is to review and approve research proposals that meet ethical standards and protect the rights and well-being of participants. MUST REC is accredited by Uganda National Council for Science and Technology; and it is also recognized Internationally by the Federalwide Assurance of United States (FWA00007740). A total of 436 research protocols were reviewed during 2024. Some 25 protocols were amended while 8 were rejected.

14.4.2 Research Dissemination and Communication

Disseminating research findings remain a central activity at MUST. The dissemination strategies have included conferences and publication. The DRGT successfully coordinated and organized the 19th MUST Annual Research Dissemination Conference (ARDC2023) on 15th November 2024. The conference had the following Theme and sub-Themes.

Theme:
Embracing Translational Research for Sustainable and Transformation Development.

Sub-themes:
(i) Design and validation of software technologies
(ii) Population and Public Health Research
(iii) Responsive Health Systems
(iv) Policy, Governance, Social Development and Gender Equality
(v) Agricultural Productivity, and Sustainable Resilient Livelihoods
(vi) Environment and Climate Change Mitigation and Adaptation
(vii) Natural Resources Management and Biodiversity Conservation
(viii) Entrepreneurship, Business Accounting and Economic Advancement
(ix) Industry, Energy, and Emerging Technologies
(x) Food Safety, Security, and Value Chain
(xi) One Health
(xii) Inclusive Education and Educational Reforms
(xiii) Natural Products Validation and Development
(xiv) Earth Sciences, Scientific Insight and Engineering

The PhD Symposium

A PhD symposium offers PhD students a number of benefits, including the chance to present their work, receive professional feedback, network with colleagues and industry leaders, and potentially advance their careers by receiving recognition. Last year, the 9th PhD Symposium was held on 14th November and was attended by the PhD students at various levels in their academic journey, supervisors and invited experts as Mentoring Chairs for the different sessions. The parallel sessions included: 1) Science and Technology; 2) Humanities, Social and Management; and 3) Cross Cutting/Multi-Disciplinary Research

The Postgraduate Graduation Book of Abstracts

The "Graduation Book of Abstracts" for the postgraduate students who graduated at the 31st Ceremony held on 19th October 2024 was developed and uploaded on the MUST website. Below is the link to the "Graduation Book of Abstracts."
https://www.must.ac.ug/download/postgraduate-book-of-abstracts-31st-graduation-ceremonyoctober-2024/

Table 33: Proposals Awarded Internal Research Grants in FY2023/2024

S/N	Research title	UGX
	1st Qtr. release	
1	Efficient Concurrent Data Structure Algorithms for Big-data Computations: Data streaming and Artificial Intelligence in Resource Constrained Environments	20,000,000
2	Incidence and Predictors of acute Kidney Injury among patients admitted at the Intensive Care Unit of Mbarara Regional Referral Hospital	20,000,000
3	Community-Based Interventions for Increasing COVID-19 Vaccine Acceptance and Uptake in Rural Southwestern Uganda	19,852,000
4	Value-Addition to Matooke Peelings to Produce Polyhydroxyalkanoates (PHA) – A Biodegradable Bioplastic	19,996,080
	2nd Qtr. Release	
5	Future Prediction of Antimicrobial Resistance of Staphylococcus Aureus against Antibiotics in Uganda Using Support Vector Regression Machine Learning Technique	20,000,000
6	Digitized CBC Results Transmission to Shorten Delay in a Clinical Setting at Mbarara Regional Referral Hospital (dCRT Study)	19,902,500
7	Development of an Integrated Electronic Grants Management System (IeGMS)	20,000,000
8	Rehabilitative Intervention to improve Health related quality of life in pediatric oncology patient's post-limb amputation in the southwestern region of Uganda	20,000,000
9	Quality of Life (QoL) among post stroke Survivors; A Pain and Mobility Outcomes assessment following a Home-Based Rehabilitation Program	20,000,000
10	Care of women whose pregnancy was complicated by hypertensive disorders of pregnancy: A case of Mbarara Regional Referral Hospital, southwestern Uganda (COMPREHEND)"	20,000,000
11	A Return on Investment Analysis of Postgraduate Student Community Placements at Primary Care health facilities in Rural Southwest Uganda (RoI)	19,800,000
12	Empowering VHTs in improving Mental Health Literacy & Early Detection of Mental Illness in rural South Western Uganda	20,000,000
13	A Security incident awareness and communication platform for academic Institutions of Higher Learning. Case study of Mbarara University of Science and Technology	20,000,000
14	Farmer's perception, Technology and the role of middlemen in market accessibility: A case study of smallholder farmers in western Uganda	20,000,000
15	Improving Ugandan Roads by Incorporation of Bio-silica Nanoparticles Extracted from Rice Husks in Asphalt Mixtures: A Sustainable Approach	20,000,000
16	Participatory Climate Change Vulnerability assessment for Ecosystem based Adaptation in the Kagera-Nakivale Wetland Catchments, Isingiro District, Uganda	19,460,000

S/N	Research title	UGX
17	Waiting for the First Oil Drop in Uganda: Analysis of the Dominant Discourses on Social and Environmental Impacts & Safeguards	20,000,000
18	Strengthening Social and Environmental Accounting for Relevant and Quality Higher Education (SEA-4RQHE) at Mbarara University of Science and Technology	20,000,000
19	Big data analytics capabilities, inter-organizational coordination capabilities, and humanitarian supply chain resilience in Humanitarian organizations in Western Uganda	20,000,000
20	Integrated Sustainable Energy Solution for Learning and Research Institutions Using Renewable Energy and AI-Based Monitoring: MUST Case Study	20,000,000
21	HERB-Safe: Investigating Aflatoxins and Heavy Metals in Trending Herbal Drinks—Their Impact on Food Security & Cancer Risk	19,990,000
22	Antimicrobial Resistance Drivers at Mbarara Regional Referral Hospital: A Case of Obstetrics/Gynecology and Internal Medicine Departments (AMRD Study	20,000,000
23	Deployment and Evaluation of Career Guidance Mobile App in Delivering Career Information to All stakeholders: A Case Study of South western Uganda	20,000,000
24	Effect of mode of entry into medical school on academic performance in Uganda	19,900,000
25	Development of a Curriculum Framework for the Faculty of Medicine at MUST	20,000,000
26	Characterization and Isolation of Streptomyces antimicrobial Compound to Discover New Antibiotics for Methicillin Resistant Staphylococcus Aureus (MRSA)	20,000,000
27	Integrating Bio-Silica Nanoparticles Obtained from Rice Husk with Anionic Surfactants for Enhancing Oil Recovery for Uganda's Oil Fields	20,000,000
	3rd Qtr. Release	
28	Creation of a Multilingual Multimodal Parallel Labelled Language Dataset for Runyankore-Rukiga and Luganda for Large Language Modelling	20,000,000
29	Exposure pathways to air pollution in sub-Saharan Africa: The contribution of domestic environments to personal PM2.5 exposure	20,000,000
30	Self-Employment as a New Dimension in Women Entrepreneurship in Mbarara City	20,000,000
Grand total		**598,900,580**

Table 34: Donor funded projects at MUST Grants Office

	Project	Funder	Objectives
1	Augmented Infant Resuscitator	USAID	To test the efficacy of the Augmented Infant Resuscitator device in maintaining newborn resuscitation skills of frontline health workers in Uganda, Ghana and India and to commercialize this device in partnership with Philips Healthcare.
2	Gynaecology Care Initiative	Massachusetts General Hospital	To support the Department of Obstetrics and Gynaecology at Mbarara Regional Referral Hospital (MRRH) and to improve the quality of family planning care at the same Hospital.
3	The International Epidemiological Databases to Evaluate Aids	National Institute of Allergy and Infectious Diseases	To enhance the electronic data capture of HIV routinely collected data, providing Kaposi's Sarcoma biopsy service and assessing the impact of alcohol use on patients enrolling into HIV care at MRRH Immune Suppression Syndrome Clinic (MRRH-ISS).
4	Improved Pediatric Inpatient Morbidity and Mortality in Rural Uganda	Izumi Foundation	The overall goal of the study is reducing pediatric morbidity and mortality in southwestern Uganda.
5	Moms Helping Moms	Massachusetts General Hospital (MGH)	To help facilitate the quality improvement processes in the department of Obstetrics and Gynaecology at MUST
6	Mbarara University Research Ethics Education program	Fogarty International Centre	The objectives of MUREEP include; develop and implement a curriculum for research ethics program and training and create a critical mass of teachers and mentors for sustainable research in South Western Uganda.
7	Developing sustainable low field magnetic resonance imaging	Eunice Kennedy Shriver National Institute of Child Health and Human Development	To develop a sustainable low-cost MRI for brain imaging. This technology will help in diagnosis of hydrocephalus and other neurological disorders.
8	Smart discharges to improve post-discharge health outcomes in children: A prospective stepped-wedge effectiveness study	CICH@BC Children's Hospital	To increase effective health seeking behavior, improve health outcomes, and reduce mortality during the post-discharge period.
9	Social Networks, HIV Stigma, and the HIV Care Cascade in Rural Uganda	National Institute of Mental Health (NIMH)	To establish a population-based, sociocentric social network cohort in rural Uganda in order to explain the social production of HIV stigma and estimate its impacts on the HIV care cascade.
10	MUST Kayanja Fellowships	Paiko Foundation	To expanding the number of physician, nurse and laboratory specialists an essential step to expanding human resource capacity to deliver health care in Uganda.
11	Mbarara Akavurugye Clinical Trial	Wellcome Trust Fund	To test ways of preventing people from getting blind due to infections of the front part of the eye which are common in this region.
12	Digital Citizen Science for community-based resilient Environmental Management	VLIR-OUS	To document factors controlling the spatial-temporal distribution of environmental hazards, their impacts and to identify the most effective mitigation and coping strategies that are community supported to deal with environmental risks and land degradation.
13	"Serial killers to mosquitos: The spatial targeting of larval habitats in rural Uganda using geographic profiling	National Institute of Allergy and Infectious Diseases	The major objective of the study is to test the effectiveness of a novel spatial analysis tool to more efficiently locate mosquito breeding sites.

	Project	Funder	Objectives
14	Virologic and pharmacologic determinants of dolutegravir failure in East Africa	National Institute of Allergy and Infectious Diseases	To evaluate the impact of pre-existing drug resistance and antiretroviral adherence on the effectiveness of dolutegravir-based antiretroviral therapy regimens in Uganda.
15	HIV Infection, Placental inflammation, and Early Childhood Outcomes in HIV-exposed, Uninfected Infants in Uganda	National Institute of Allergy and Infectious Diseases	To determine placental abnormalities among women living with and without HIV and their relationship to antibody transfer and early child health outcomes.
16	Facile screening for oesophageal cancer in LMICs	National Institute of Health (NIH)	To evaluate and validate the performance of the combined sponge-methylation biomarker strategy in vivo in PRoBE-compliant, among prospective live cohorts of patients with oesophageal cancer in Uganda.
17	Research Capacity Strength-ening Award	VLIR-OUS	To strengthen community led initiates to promote parent adolescent communication with adolescents on matters concerning their sexual and reproductive health and to build a centre of expertise in adolescent health research at Mbarara University of Science and Technology.
18	Quality of Life and Aging with HIV in Rural Uganda	National Institute of Aging (NIA)	To develop a validate and conceptual framework to understand the contributions of HIV infection to aging in rural Uganda and identify interventions to improve quality of life for older-aged people living with HIV in the region.
19	Effect of Household Air Pollution on Lung Function Growth in Infants with Pneu-monia in sub-Saharan Africa	NIH	To assess how household air pollution affects lung develop-ment in infants with pneumonia in developing countries in Sub-Saharan
20	Community Health Program component of the First Miles Phase 2	Wyss Foundation	To establish MUST as a premier academic medical centre focused on community-based healthcare delivery, research, and innovation.
21	Multi – morbidity in Uganda Research Capacity Initiative award	Fogarty Interna-tional Centre	The major aim is to develop junior faculty expertise in Uganda on multi– morbidity non-communicable diseases research.
22	Inflammation, Social Networks, and Depression in Rural Uganda	National Institute of Mental Health (NIMH)	To estimate the causal effect of social networks on depres-sion and to assess the extent to which inflammation causally mediates this effect
23	Healthy Adolescents & Young People	Global Affairs Canada (GAC)	To improve women's and adolescent girls' reproductive and sexual health and rights and access to high quality sexual and reproductive health and rights (SRHR) services and education, including the prevalence of contraception use in Rubirizi and Bushenyi and selected communities in Ntungamo districts, South Western Uganda
24	A randomized clinical Trial of early empiric Anti-Mycobacterium tuberculosis therapy for Sepsis in sub-Saharan Africa (ATLAS trial)	National Institute of Allergy and Infectious Diseases	The project seeks to reduce deaths due to severe sepsis in patients with late-stage HIV infection.
25	The influence of air pollution on lung health among people living with HIV	National Heart, Lung, and Blood Institute	To examine whether HIV serostatus influences relationships between air pollution, inflammation and lung function.
26	Making Refugee Integration Sustainable: In Search of Durable Relations with Host Populations in Uganda	VLIR-OUS	To strengthen the research capacity of Mbarara University of Science and Technology in the discipline of forced displace-ment.
27	MGH Wyss Global Health Fellowship	Sundry Fund	To explore ways that patients and healthcare providers have adapted to accessing and providing health care services for NCDs during COVID-19 pandemic

	Project	Funder	Objectives
28	"MamaOpe Pneumonia Diagnostic device: A feasibility, acceptability and effectiveness evaluation in Uganda	International Development Research Centre	Phase I will be an acceptability and feasibility study. Phase II will determine the accuracy of the MamaOpe diagnostic device to determine Respiratory Rate and collect data for training and testing of the lung sound interpretation algorithm.
29	Metabolic and molecular ecological evolution of opportunistic pulmonary fungal co-infections	European and Developing Countries Clinical Trials Partnership Association implementing EDCTP2	To explore Metabolic and Molecular Ecological Evolution of Opportunistic Pulmonary Fungal co-infections.
30	Predictive Personalized Public Health (P3H): A Novel Paradigm to Treat Infectious Disease	National Institute of Allergy and Infectious Diseases	To develop a comprehensive understanding of the full spectrum of microbial causes of newborn infections and the human host's response to them, using advanced molecular sequencing technology and to predict children with central nervous system infections
31	A technology enabled care pathway delivered by community health workers to manage low back pain in Uganda	Science Foundation Ireland	To improve access to rehabilitation for people with low back pain (LBP) to reduce its disability burden, and to improve functional and participatory outcomes (such as return to work or school).
32	An Intervention to Support Access to Tuberculosis Care and Medication Adherence in Rural Uganda	NIH	To develop My Mobile Wallet— a behavioural and economic intervention to support TB treatment adherence.
33	Glaucoma Screening and Treatment project for Southwestern Uganda	Christian Blind Mission (CBM)	To provide glaucoma screening and care in the Southwestern region of Uganda by December 2024.
34	Self-management among adolescents living with HIV in Uganda"	Fogarty International Centre	To 1) Use qualitative research to elaborate a conceptual model of the barriers faced by ALHIV transitioning to adult HIV care in Uganda; 2) Develop a self-management intervention that will enable ALHIV to successfully transition to adult HIV care.
35	Exploring Intersectional Stigmas Among Men Living with HIV in Uganda)	Fogarty International Centre	To explore experiences of intersectional stigma among Men living with HIV and their partners who have unmet reproductive goals.
36	Pandemic-related disruptions in HIV care among adolescents and young adults living with HIV (AYALWH) and the potential for mHealth interventions"	Harvard University Centre for AIDS Research	To examine the disruptions in HIV care experienced by adolescents and young adults living with HIV at the Mbarara Regional Referral Hospital and to assess the role of mobile health (mHealth) in bridging the interruption in HIV care services.
37	"Surveillance of Emerging Pathogens and Antibiotic Resistances in Aquatic Ecosystems	Swedish International Development Agency.	To determine the prevalence of pathogenic viruses (including SARS-CoV-2), microbial indicators, antibiotic resistance, and microbial source tracking markers in wastewater, surface water in catchments located in Mbarara, Uganda
38	Getting Malaria off the Back of Women and Children	Dorris Duke Charitable Foundation	To determine the preliminary effectiveness of insecticide treated Lesus (i.e. baby wraps) to reduce the incidence malaria infection among infants
39	Inform Effective Operationalization of the Presidential Industrial Hubs and related AGI-LED	Ministry of Local Government	To provide a Framework for operationalization of the different components of the Industrial Hubs which is informed by evidence and lessons learnt.
40	Uganda TB Risk by Alcohol Consumption	National Institute on Alcohol Abuse and Alcoholism	To estimate the incidence rate of new TB infection among PLWH with prior negative Tuberculin Skin test results and to determine the incidence of active TB disease among PLWH with prior TB infection, who received INH, both by level of alcohol use.

	Project	Funder	Objectives
41	Colorectal Carcinogenesis in the Young: Diet, Microbiome, Genetic and Epigenetic Alterations, Metabolism and Inflammation in Cohorts on three Continents	Sahlgrenska University Hospital/Östra and Swedish Government	To present data on Colorectal Cancer (CRC) epidemiology, key genetic as well as epigenetic alterations linked to CRC in three unique environments (Sweden, Uganda and USA).
42	Understanding individual- and social network-level factors affecting infant HIV testing to design social network interventions to increase testing of HIV-exposed infants	Eunice Kennedy Shriver National Institute of Child Health and Human Development	To examine the individual-level and social network predictors of infant HIV testing in Mbarara to inform an intervention that will prompt earlier infant HIV testing in Mbarara, Uganda.
43	Teacher Training Education (TTE) project	ENABLE	To strengthen professional competencies of teacher trainers and future teachers graduating from the National Teachers' Colleges
44	Improve access to Sexual and Reproductive Health information and services for adolescents in Mbarara district in South Western Uganda	The World Academy of Science	To strengthen professional competencies of health workers in Mbarara district to provide age-appropriate adolescent friendly health services
45	ER 4 on Higher Education/SDG4	United Nations Education, Scientific and Cultural Organisation	To facilitate conduct of labour market analysis for use in curriculum review, programme development and assessment methods to map new skills gaps and emerging future skills
46	Program collaboration with MRRH	Wyss Foundation	To Empower nursing leadership to develop and implement innovative models of care.
47	The First Mile: Powering the Academic Medical Centre to Deliver Healthcare in the Community in Uganda	Wyss Foundation	To support collaborative planning and information sharing, monitoring, essential meetings, and other activities to ensure smooth and holistic implementation of the project.
48	Salary Support for Program Officer, Advocacy to Accelerate Access to COVID 19 Vaccines in Uganda Project (VAX-Uganda)	MGH	To Accelerate Access to Covid-19 Vaccines in Uganda (VAX-Uganda) is to synthesize and amplify the voices of the Ugandan community in catalysing real progress towards COVID-19 vaccine equity
49	MUREC	Pyott Foundation	To strengthen ophthalmology training in East, Central and Southern Africa
50	Sweden-East Africa University Network	Swedish Foundation for International Cooperation in Research and Higher Education	To strengthen the research collaboration between Sweden and East African University in various areas including; agriculture, health, education and information communication technologies.
51	Artemisinin Resistance in Africa: its emergence and evolution in Rwanda and surrounding countries"	National Institute of Allergy and Infectious Diseases	To define ArtR 561H distribution, spread over time, origin(s), and factors impacting its selection and spread in Rwanda and neighbouring countries
52	Piloting testing of point of care diagnostics to improve diagnosis of microbial keratitis in Uganda	Velux Stiftung, Kirchgasse	To improve capacity to diagnose infections of the front part of the eye which are common in this region, by comparing several novel alternative point-of-care diagnostic tests in a tertiary and secondary level setting.

	Project	Funder	Objectives
53	"Perceptions of Social Norms and Personal Propensity to Engage in HIV Testing: A Mixed Methods Study and Intervention in Rural Uganda	National Institute of Mental Health	To establish people's perceptions about HIV prevention, attitudes, and behaviours and how these perceptions impact personal behaviour
54	Institutional Review Board (IRB) support, work-space and related costs, visitor assistance, information technology support,	MGH	To contribute towards the share for infrastructure, as well as full salary support for the Visitor Coordinator.
55	Preventing repeat adolescent pregnancy in Rural South-western Uganda	Deutsche Gesellschaft für Internationale Zusammenarbeit	This project aims at strengthening professional competencies of health workers in Mbarara district to provide age-appropriate adolescent friendly health services.
56	Consortium of Affordable Medical Technologies	Wyss Foundation	To provide a continuous framework for innovations in nursing and community health care over the next two years.
57	Sustained Routine Cataract Auditing (SROCA) in Western Uganda	Fred Hollows Foundation	To test the feasibility of introducing a cataract outcome monitoring practice in Uganda and the impact of this intervention on the quality and safety of cataract surgery.
58	Nursing component of the First Mile Program	Wyss Foundation	To empower nursing leadership to develop and implement innovative models of care.
59	Family-centered social media intervention to promote antiretroviral therapy adherence among adolescents and young adults with HIV in Uganda (Family U-SMART)"	Thresher Foundation	To develop a family-centered mobile health (mHealth) intervention to improve antiretroviral (ART) adherence among adolescents and young adults living with HIV at the Mbarara Regional Referral Hospital and to pilot this intervention among adolescents who have poor ART adherence.
60	Masters of Medicine (MMED) Fellowship Program at MUST	Wyss Foundation	To expand the number of trained skilled doctors is an essential step to expanding human resource capacity to deliver health care in Uganda.
61	Masters of Nursing Scholarships at MUST	Wyss Foundation	This program is the result of a 2013 needs assessment that documented the lack of professional growth and educational opportunities for nurses within Uganda.
62	HoliCare: A holistic approach in patient management and epidemic surveillance through convergence of diagnostic technologies, capacity building and stakeholder engagement	European Union-Erasmus	To develop an innovative approach to enhance PRD research in sub-Saharan Africa that fits the aims of the EDCTP – to further support research on the major infectious disease threats facing sub-Saharan Africa - and to achieve real and fast progress in public health gain.
63	The in vivo Safety and in vitro Efficacy of Eucalyptus Grandis Wood Smoke Bio-Base Polyphenol for Management of Bacterial and Viral Infections	Science Technology & Innovations (STI)- OP	The in vivo Safety and in vitro Efficacy of Eucalyptus Grandis Wood Smoke Bio-Base Polyphenol for Management of Bacterial and Viral Infections
64	AMR surveillance, Modelling Antimicrobial pharmaceutical needs and PCR/Herbal/Biotechnological products development	Science Technology & Innovations (STI)-OP	AMR surveillance, Modelling Antimicrobial pharmaceutical needs and PCR/Herbal/Biotechnological products development

	Project	Funder	Objectives
65	Recycling of Plastic Waste into Ecofriendly Interlocking Blocks to address the challenges of houses for the poor people and the construction of UPE/USE School Classrooms)	Science Technology & Innovations-OP	Long term goal is to construct a commercial factory by 2024 and employ more than 106,000 Ugandans.
66	The adaptation and valida-tion of an HIV Disclosure Scale in Uganda Study	Harvard Univer-sity Centre for AIDS Research	To develop a scale to measure HIV disclosure for people with HIV in resource limited settings.
67	A-Lite Vein Locator	IDRC	To conduct clinical trials to support the vein locator device
68	Gabapentin to Reduce Alcohol and Improve Viral Load Suppression (GRAIL) - Promoting "Treatment as Prevention	NIH	To examine whether gabapentin reduces alcohol use and improves HIV viral load suppression among people with HIV (PWH) in Uganda.
69	Tuberculosis, Alcohol, and Lung Comorbidities	NIH	To understand the relationship between hazardous drinking and post-TB lung disease among people with HIV (PWH) in Uganda.
70	Strengthening Capacity for ICT Usage and Policy Reforms for Relevant and Quality Masters Research Process Management in Uganda's HEI	European Union	To strengthen higher education institutions capacity to use ICT in Masters' research journey management processes and devise Policy reforms for relevant high-quality research outputs at HEIs in Uganda
71	Management of Virologic Failure for Individuals on TLD in Sub-Saharan Africa"	NIH	To evaluate the most clinically effective and cost-effective strategy for managing individuals with virologic failure on first-line antiretroviral therapy containing dolutegravir in Uganda and South Africa.
72	Piloting a Vision Centre in Rural Southwestern Uganda	Novartis Pharma AG	To start up a Community Vision Centre in Buhweju District as a way of improving access to quality eye health among the most underserved populations. The lessons learnt from this pilot project will be used to deliver eye care to other similar settings.
73	Innovation for Sustainability and Societal relevance: Partnerships in evidence-based higher Education on food systems and climate change	European Education and Culture Executive Agency (EACEA	The INSSPIRE project aims at stimulating evidence-based inclusive education for sustainable development through following specific objectives: Building intra-university capac-ity, strengthening university-community collaboration, and enhancing inter-university partnerships.
74	Application of Blockchain to Revitalize Warehouse Receipt System (WRS) and Contract Farming (CF) in East Africa	IDRC	To look into innovation support for agricultural-based SMEs as well as the potential for increased equity, diversity, and inclusion in the agricultural supply chain.
75	Smart Dairy Production in South Western Uganda Project.	Agriculture Business Initiative Development Limited (aBi).	To increase the use of GreenHouse Gas (GHG) emissions re-duction technologies for improved dairy production in South Western Uganda.
76	Effect of Inter-Professional Simulation-based learning on communication skills of multi-disciplinary student teams at two African medical schools (IPSUM)Study	NIH	To determine the barriers and facilitators of inter-professions simulation-based learning at two medical schools with established medical simulation-based learning centres in sub–Saharan Africa and to measure the impact of inter-profession medical simulation-based learning on interprofessional collaborative communication and practice skills among undergraduate medical and nursing students

	Project	Funder	Objectives
77	Omuyambi: Traditional healer support to improve HIV viral suppression in rural Uganda"	NIH	To engage and support rural people living with HIV in Uganda through local traditional healers in additional to routine clinical care, with the goal of improving HIV-outcomes
78	Developing an STI partner notification services delivery intervention in southwestern, rural Uganda study	NIH	To develop an intervention to develop a method for STI partner notification delivery with input from key stakeholders.
79	Air pollution and lung health in resource-limited settings: Understanding the impact of biomass	NIH	To characterize ambient air pollution concentrations and sources in rural Uganda and their impact on the lung health of vulnerable populations.
80	Development and assessment of an HIV disclosure intervention for men in Uganda study	NIH	To develop an intervention to help men with HIV to disclose their HIV serostatus to their partners and loved ones.
81	Prevention of transmission of multi drug resistant superbugs in intensive care unit of Mbarara Regional Referral Hospital	Pfizer	Prevention of transmission of multi drug resistant superbugs in intensive care unit of Mbarara Regional Referral Hospital
82	Evaluation of novel tuberculosis LAM assays among people living with HIV and sepsis	NIH	Evaluation of novel tuberculosis LAM assays among people living with HIV and sepsis
83	Treated HIV-Infection, Bone Mineral Density, and Compression Fractures in Uganda	NIH	To determine the epidemiology of bone mineral density and vertebral compression fractures among older age individuals in a cohort of people with and without HIV infection
84	Development of Software to Rapidly Assess Placenta Images at Birth	NIH	To: a) to develop AI-based software that accurately identifies a range of placental features and diagnoses from digital images; b) To improve the reliability and robustness of the AI-based software under different conditions
85	Epidemiology of Coronary Artery Disease among People with HIV in Rural sub-Saharan Africa	NIH	To measure common heart disease is in Uganda, and to determine if heart disease is more common in people with HIV, and in women compared to men
86	"Population Effectiveness of Dolutegravir Implementation in Sub-Saharan Africa: A Prospective Observational Cohort Study	ViiV Healthcare	To evaluate the implementation of antiretroviral treatment for HIV that includes a medication called dolutegravir in public clinics in rural Uganda and South Africa.
87	"Assessment of Neural Tube Defects among Newborns in Uganda: a Study of Prevalence, Risk Factors and the role of Gene-Environmental Interactions (NTDs-UGANDA)	NIH	To assess the correlation of common NTD risk factors in the development of NTDs and to evaluate the environmental-gene interactions in the development of NTDs.
88	Exposure to Mixtures of Emerging Contaminants in the Environment - Are Communities in Uganda at Health Risk?- A Case Study of Mbarara City	Fogarty International Centre	To investigate the occurrence and effect of exposure to emerging contaminants in the aquatic environment on mammalian metabolism and translate the findings to human beings.
89	A social media mHealth intervention to improve retention in care of adolescents and young adults with HIV in Uganda"	Fogarty International Centre	To examine the preliminary efficacy of an mHealth based intervention to improve retention in care of adolescents and young adults with HIV who are new to care at the Mbarara Regional Referral Hospital

	Project	Funder	Objectives
90	Decent Work and Social Protection Project	ENABLE	To contribute to the promotion of a Safe Workplace Environment, free from gender-based discrimination and gender-based violence in the agriculture, tourism, and hospitality sectors in the Albertine and Rwenzori regions.
91	Integration of a patient-centered mobile health intervention (Support-Moms) into routine antenatal care to improve maternal health in Uganda	Fogarty International Centre	The major objective of the study is to Test the effectiveness of a novel Support-Moms intervention in a randomized controlled trial, establish the intervention acceptability, appropriateness, feasibility, and fidelity using the Proctor framework, and evaluate the cost, cost effectiveness and sustainability of introducing Support-Moms intervention into routine care.
92	Oral diseases and quality of life in older adults on anti-retroviral therapy in Uganda	Fogarty International Centre	Oral diseases and quality of life in older adults on antiretroviral therapy in Uganda
93	EsophaCap for the Detection of Early Esophageal Carcinoma	NIH	To evaluate an oesophageal cancer diagnostic strategy comprising a single-use swallowed retrievable sponge-capsule.
94	Solar and biogas off grid power for Rwenjuru Agro Tourism and Demonstration farm Mbarara Uganda	Innovate Uk	The project will focus on the waste-to-energy anaerobic digestion system which will help to process food and agricultural waste that will otherwise pollute the environment and utilize the abundant sunlight to produce clean renewable energy 24hrs a day.
95	Grand Challenges Strengthening Modeling - Tunisia: African Modeling and Analytics Academy for Women (AMAX)	Bill & Melinda Gates Foundation	Grand Challenges Strengthening Modeling - Tunisia: African Modeling and Analytics Academy for Women (AMAX)
96	Harmonising Innovation: Collaborative synthesis of Bio - Silka Non-Particles derived from Rice Husk for various Industrial Applications	Royal Academy of Engineering, UK	Harmonising Innovation: Collaborative synthesis of Bio - Silka Non-Particles derived from Rice Husk for various Industrial Applications
97	Preventing Rheumatic Injury biomarker Alliance: The Leducq PRIMA Network	LEDUCQ Foundation	To identify accurate molecular biomarker(s) for early Acute Rheumatic Fever and their mechanistic underpinning to maximize prompt application of primary treatment and secondary prophylaxis
98	Digital Agripreneurship Innovation to Enhance Post-Pandemic Resilience	New Frontiers in Research Fund (NFRF)	To enhance post-pandemic resilience among refugee women and youth (15-35 years) in NRS through a Digital Agripreneurship innovation that includes digital and agripreneurship capacity building, access to modern agriculture information, and start up capacity in form of agriculture inputs (e.g. quality seeds, pesticides, agriculture tools, basic irrigation system, etc.) in Nakivale camp.
99	Composing CRISPR based isothermic nucleic acid amplification devices (CODAs) to cervical cancer screening	National Cancer Institute	To develop and validate novel diagnostic technologies for use in cervical cancer screening at the point of care in low resource settings.
100	Enable Discrimination Study	ENABLE	Baseline Study on the Current State of Discrimination and Exclusion across Diversities within Targeted Populations in the Enable Intervention Locations and Sectors of Secondary Education, Maternal and Child Health and Skilling Programs

15. PHARMBIOTRAC PROJECT

15.1 Introduction

Pharm-Biotechnology and Traditional Medicine Center (PHARMBIOTRAC) is an Africa Higher Education Center of Excellence (ACEII) at the Mbarara University of Science and Technology (MUST), Uganda. PHARMBIOTRAC is providing a regional platform to deliver quality post-graduate education & training, and build collaborative research capacity in the field of innovative natural drug/product development, including exploring the use of indigenous knowledge and medicinal plants in Africa. **PHARMBIOTRAC** provides technical and financial support to selected, research-focused and qualified candidates to pursue their MSc, PhD and innovation incubation programs aimed at achieving the goal of the centre. Teaching, mentoring, and supervision of students is provided by a joint team of multinational faculty and staff from partner Universities within Africa and other parts of the world, as well as senior technical experts from relevant industries, private sector partners and research institutes globally.

The goal of PHARMBIOTRAC is "to build a critical mass of specialized and skilled human resources that can advance traditional medicine and Pharm-Biotechnology for the socio-economic development of Africa".

The Vision of PHARMBIOTRAC is "to be a leading African Centre of Excellence for training and research in traditional medicine and pharm-biotechnology", The Mission of PHARMBIOTRAC is "to contribute to documentation, validation and value chain development of traditional medicine, and biotechnology products for use in pharmaceutical and nutraceuticals industries in the region through training, research, and community services for sustainable development".

The main objective of PHARMBIOTRAC is to build a critical mass of specialized and skilled human resource that can advance traditional medicine and Pharm-Biotechnology for socio-economic development of Africa, and the specific objectives include to;
Strengthen capacity in the region to train highly skilled and specialized professionals in traditional medicine and Bio-pharmaceuticals,
Strengthen capacity in the region to engage in cutting edge research in TM and systems biology for health products development,
Create capacity in collaboration with private sector industry for development, production and commercialization of TM, biopharmaceuticals and nutraceuticals from research outputs,
To advance the practices of TM/TMK in the region and promote domestication and sustainable utilization of medicinal species.

15.2 Summary of Key Achievements of PHARMBIOTRAC

PHARMBIOTRAC has surpassed its targets across multiple dimensions, including student enrolments, research publications, and product innovations among others.
The center also exceeded expectations in the number of learners it trained for short courses, based on 2017 baseline, proving not only interest but also popularity of the field of traditional medicine and indigenous knowledge in the Eastern and Southern Africa region.

PHARMBIOTRAC has made impressive strides in student enrolment, far exceeding its expectations. By 2023, the center enrolled 122 MSc students, well beyond its initial target of 60 set in 2017. The majority of these students pursued new programmes developed at the inception of PHARMBIOTRAC and received both national and international accreditations. The Master of Pharmacy in Clinical Pharmacy attracted most of the students, followed by the MSc in Pharmacognosy and Natural Medicine Science, which attracted 30 students. Another 21 students were enrolled in the MSc in Pharmacology, while 17 others opted for the Master of Science in Pharmaceutical Analysis and Quality Assurance.

In addition to MSc students, the center enrolled 35 PhD students, surpassing the 2017 target of 30. Of these PhD students, 10 were female. Over 35% of all the students enrolled are regional students coming from across Africa representing; Democratic Republic of the Congo (DRC), Benin, Ethiopia, Gambia, Kenya, Malawi, Nigeria, Rwanda, South Sudan, Tanzania, and Uganda. The academic year 2017/2018 being the most subscribed year when a total of 25 PhD students enrolled were enrolled for example. More significantly, PHARMABIOTRAC demonstrated vibrancy in research producing a total of over 200 research articles, one of the highest of any single ACE against a 2017 baseline of only eight.

The impact of PHARMBIOTRAC extends far beyond its immediate academic community. Graduates from the center have gone on to make significant contributions in the fields of traditional medicine, biotechnology, and pharmaceutical industries. Just to give a snapshot to illustrate this point, Dr. Mushagalusa Kasali Félicien, completed his PhD at Mbarara University of Science and Technology (MUST) in May 2022 and has since achieved remarkable professional success. He was elected the Dean of the Faculty of Pharmaceutical Sciences and Public Health at UniversitéOfficielle de Bukavu in DRC. In February 2024, he was appointed the Dean of the School of Health Sciences, overseeing Medicine, Pharmaceutical Sciences, and Public Health at the same institution. In collaboration with his former mentors and colleagues from PHARMBIOTRAC, Dr. Kasali is currently implementing a regional project titled "Development of Biobased Supplements to Artemisinin-Based Combination Therapy for Malaria (SUPPACT)," funded by The Swedish International Development Cooperation Agency (Sida) through The International Centre of Insect Physiology and Ecology (ICEPI), Kenya for the period 2023-2026.

Prof. Dr. Lina Sara Mathew Alonga, after completing her PhD under PHARMBIOTRAC is now the Director General for Science, Technology, and Innovation at the Ministry of Higher Education, Science, and Technology in South Sudan, and has built an impactful career as Professor at Bahr El Ghazal University. Through her leadership, Prof. Dr. Lina fosters international partnerships and advocates for the exchange of knowledge, playing a crucial role in advancing science and innovation in her country. Dr. Clement OlusojiAjayi, from Nigeria, completed his PhD in Pharmacognosy and Natural Medicine Science at MUST, is now a Senior Research Scientist at PHARMBIOTRAC and also in-charge of Analytical Laboratory at the Centre.

Other success stories of PHARMBIOTRAC alumni include; Dr. Andrew Glory Mtewa (now Director of Postgraduate School, Malawi University of Science and Technology, Malawi), Dr. Emmanuel Lyimo Peter (now Director, National Institute for Medical Research (NIMR), Dar Es Salaam, Tanzania), Mr. AbdoulieEssaMballow (now Program Manager for National Traditional Medicine Program, Ministry of Health, Gambia), Dr. Hilda Ikiriza (now a Senior Research Scientist at and also in-charge of Biotechnology laboratory), Dr. EfrataShegenaAshuro (originally from Ethiopia and is currently pursuing a PhD in Pharmaceutical Evaluation and Policy at the University of Arkansas for Medical Sciences in the USA. For more information, please follow PHARMBIOTRAC Success Stories at: https://pharmbiotrac.must.ac.ug/our-success-stories/
PHARMBIOTRAC has also been successful in incubating a range of innovations. Notably, the Covidex product, an herbal remedy for COVID-19. The Centre's students and staff worked with local company to test and submit laboratory data for Covidex enabling its national regulatory emergency approval for use against Covid-19 Pandemic.Covidex spanned all continents and races and remains a national treasure and pride in Uganda. PHARMBIOTRAC and MUST became more famous and respected with more national and regional students now applying to study here, hence a true sense of internationalization of Higher Education Sector on African Continent. The Principal Investigator and staff have received national, regional and global awards for the fight against COVID-19.
Going forward, PHARMBIOTRAC is now linking master's graduates to PhD funding in the field of traditional medicine products. In addition, while some graduates are lecturing in universities, others are working with herbal medicine factories and others have started their own companies whose products are being incubated at the Centre's Regional Incubation Hub.

"We also hope for a second phase of funding (termed as "ACE Impact Phase"). We also have instituted a sustainability plan for the continuity of PHARMBIOTRAC through the incorporation, both in Uganda and in the USA, of a tax-exempt entity called the "Friends of PHARMBIOTRAC Foundation (FPF)," he further revealed. For more information about the FPF and how you can support our work, please visit: https://pharmbiotracfoundation.org

Beyond Covidex, the center has developed 25 other undisclosed medical-related products, further showcasing its potential in driving the development of new therapeutic options. The center also had five different degree programs accredited against a 2017 baseline of two. These included Master of Science in Pharmacology, Master of Pharmacy in Clinical Pharmacy and Master of Science in Pharmacognosy and Natural Medicine Science that were internationally accredited by the Accreditation Agency for Study Programs of Engineering, Information Science, Natural Sciences and Mathematics of Germany (ASIIN e.V).

In terms of community engagement, the center PHARMBIOTRAC managed to train a total of 5000 Traditional Medical Practitioners (TMPs) through five modules of short courses one of the highest milestones by any ACE II center. The Centre has also set up two traditional medicine clinics to assist the practitioners in standardization of their medicines for value addition.

To promote the quality, efficacy and safety of medicine made by the traditional medicine practitioners, PHARMBIOTRAC trained 100 herbal medicine producers in tailor-made short courses focused on the three areas of their products in line of Good Manufacturing Practices (GMP). This was above the initial target of training only 90 of the medicine men. The center managed to mobilize nearly US$1.2 million, about 80% of which had been received by 2023, and which included an infrastructure grant of US$40,000,000 from the BRIDGIN Foundation it had secured in partnership with the host MUST.

PHARMBIOTRAC at the same time signed over 20 Memorandums of Understanding (MOUs) with various local, regional and international universities, NGOs and private industrial partners over the period, among them Institute of Transdisciplinary Health Sciences & Technology (TDU) of India, and America's University of Michigan among many others.

"PHARMBIOTRAC has developed and is running demand- driven programs in key priority areas for national and regional development. It is also successfully hosting a regional Innovation Incubation Hub serving a critical sector of natural product development, providing a platform for entrepreneurs, start-ups, regulatory bodies, experts and other relevant stakeholders for developing the traditional medicines sector, natural cosmetics, health beverages and pharmaceutical ingredients," the center states in the report.

PHARMBIOTRAC has established a museum for herbal medicines and other natural products with 'incubatees' from Uganda and other regions of Africa, to showcase opportunities and diversity of plant-based medical products.

The Centre is establishing the living gene bank (herbal garden) to preserve and conserve rare medicinal plants that are facing extinction for sustainable utilization in the future medicinal plant research studies.

15.3 PhD Student Enrolment (regional and national)

Intake year	Regional Male	Regional Female	Regional Total	Total Male	Total Female	Total national + regional	Target	Performance %
2017/2018	6	2	8	17	8	25	10	250
2018/2019	0	0	0	1	0	1	10	10
2019/2020	1	0	1	1	1	2	10	20
2020/2021	0	0	0	2	0	2	0	0
2021/2022	0	0	0	3	0	3	0	0
2022/2023	0	0	0	1	1	2	0	0
Cumulative	7	2	9	25	10	35	30	117

15.4 MSc Student Enrolment (regional and national)

Intake year	Regional Male	Regional Female	Regional Total	Total Male	Total Female	Total national + regional	Target	Performance %
2016/2017	0	0	0	6	0	6	0	
2017/2018	2	3	5	5	4	9	15	60
2018/2019	1	1	2	24	10	34	15	227
2019/2020	2	3	5	10	5	15	15	100
2020/2021	4	1	5	16	4	20	15	133
2021/2022	1	0	1	2	2	4	0	0
2022/2023	1	0	1	12	6	18	0	0
2023/2024	1	1	2	13	3	16	0	0
Cumulative	12	9	21	82	34	122	60	203

15.5 MoUs on partnerships for collaboration

	2016/2017		2017/2018		2018/2019		2019/2020		2020/2021		2021/2022		2022/2023		2023/2024	
	July-Dec 2016	Jan-Jun 2017	July-Dec 2017	Jan-Jun 2018	Jul-Dec 2018	Jan-Jun 2019	Jul-Dec 2019	Jan-Jun 2020	Jul-Dec 2020	Jan-Jun 2021	Jul-Dec 2021	Jan-Jun 2022	Jul-Dec 2022	Jan-Jun 2023	Jul-Dec 2023	Jan-Jun 2024
20	1	3	0	0	4	0	2	0	0	1	1	3	1	2	0	2
12	0	0	2	3	2	2	1	0	1	0	1	0	0	0	0	0
158	0	0	0	0	200	0	200	0	0	0	0	0	0	0	0	0

15.6 Accredited education programs

		2016/2017		2017/2018		2018/2019		2019/2020		2020/2021		2021/2022		2022/2023
		Jan-Jun 2017	July-Dec 2017	Jan-Jun 2018	Jul-Dec 2018	Jan-Jun 2019	Jul-Dec 2019	Jan-Jun 2020	Jul-Dec 2020	Jan-Jun 2021	Jul-Dec 2021	Jan-Jun 2022	Jul-Dec 2022	Jan-Jun 2023
July-Dec 2016														
National						2						1		
Regional														
International														3
Short-term Courses														
Total	6					2		0	0	0	0	1	0	0	3
Targets	2					2									2
Performance %	300					100									150

Table 29: Revenue Attracted by PHARMBIOTRAC

SN	Revenue sources (organisation)	Currency	Committed Grant	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	Actual release
1	ANAMED Germany - Herbal HIV Therapy	USD	150,000	55,724	55,680	58,595						169,999
2	SNV - Herbal Tick remedies research	USD	180,000		2,556		3,262					5,818
3	ACEII Incubator	USD	250,000			250,000						250,000
4	Royal Museum for Central Africa - HARIS-SA Project	USD	150,000			5,036	32,903	15,292	1,817			55,048
5	RUFORUM RECAP - Incubator Hub	USD	50,000				25,000	25,000				50,000
6	Royal Museum for Central Africa - ATRAP Project	USD	370,000			69,085	77,105	123,742	45,111	7,694		322,737
7	IFS International Foundation For Science	USD	12,000		11,980					12,000		23,980
8	MoSTI Uganda - COVID Project	USD	77,000				38,500	38,300				76,800
9	Royalties from Incubation Centre	USD							389			389
10	RUFFORD Foundation (£5989)	USD	7,623							7,418		7,418
11	GIZ-BMZ-Uni Leipzig Herbal Medicine	USD	59,026							27,424	13,558	40,982
12	INTERACT AFRICA (EU)	USD	396,835							185,394		185,394
13	Royal Museum for Central Africa - ATRAP II Project	USD	396,835							80,000		80,000
14	Education Collaborative (Framework for Innovation)	USD	3,000							3,000		3,000
15	Education Collaborative Career Fair	USD	10,000								10,000	10,000
	Total	USD	1,702,485	55,724	70,216	382,716	176,770	202,334	47,317	322,931	23,558	1,281,566

Our bigger dream – PHARMBIOTRAC Campus

Capacity development Innovators - Entrepreneurs

Accelerate prototype development, Co Creation - facilitating ideas to commercialization

Contract manufacturing, industrial scaling of prototypes

Conservation and recreation, Botanical Garden facilities

PhD Graduation PHARMBIOTRAC

SerawitDeynoChorito - PhD Stud of Cohort 2017 is Column chromatography

PHARMBIOTRAC Boardroom with online conferencing facilities

PHARMBIOTRAC Museum for Herbal Medicine and Natural Products

Dr. Hilda Ikiriza having lab session with graduate students in the PHARMBIOTRAC biotechnology lab

Training of Herbalists in Luuka District (Eastern Uganda), In the lab coat is Mr. Angupale Jimmy (Product Development Officer, PHARMBIOTRAC)

Some staff of PHARMBIOTRAC

15.7 PHARMBIOTRAC Organizational Chart

```
                        University
                         Council
                            ↕
                  Vice Chancellor MUST
                   Prof. Celestino Obua
                            ↕
          Center Leader/Director Partnership and
          External Relations PHARMBIOTRAC
                  Dr. Casim Umba Tolo
                            ↕
    Deputy Center Leader/Principal          ↔    Project
    Investigator PHARMBIOTRAC                     Adminstrator
    Dr. Patrick Engeu Ogwang
```

Chair, Learning Excllence Prof Amon G. Agaba	Chair, Research Excllence Dr Juliet Mwanga Amupaire	Chair, Learning & Research Quality Assurance Dr. Esther Ankunda	Chair, Innovations & Business Management Dr. Anke Weisheit	Chair, Finance & Adminstration Dr. Dominique Musana
Learning Teams (Faculty, Students, Technicians, Partners)	Research Teams (Faculty, Students, Technicians, Partners)	Research Teams (Faculty, Students, Technicians, Partners)	Innovation & Business Team (Faculty, Students, Technicians, Industry)	Finance & Adminstration Team

15.8 Conservation/Botanical Garden

In-Situ & Ex-Situ Conservation of medicinal plants and trees established through creating a living gene bank (Botanical garden of PHARMBIOTRAC), at MUST – representing all 4 geographical regions of Uganda and one unit for regional collection of medicinal plant species.

Key Objectives

(i)   Create a living biorepository which preserve genetic material of medicinal species (ex-situ conservation),

(ii)   Propagate important medicinal plants for cultivation and make seedlings available to the public,

(iii) Cultivate and conduct harvesting trials of medicinal plants,

(iv) Encourage domestication of rare but useful medicinal species,

(v)   Establish a herbarium to facilitate correct identification of plant species in the garden,

(vi) Create a database of medicinal plant species for Uganda and international collections,

(vii) Facilitate partnerships locally and internationally.

Location of the PHARMBIOTRRAC Conservation/Botanical Garden
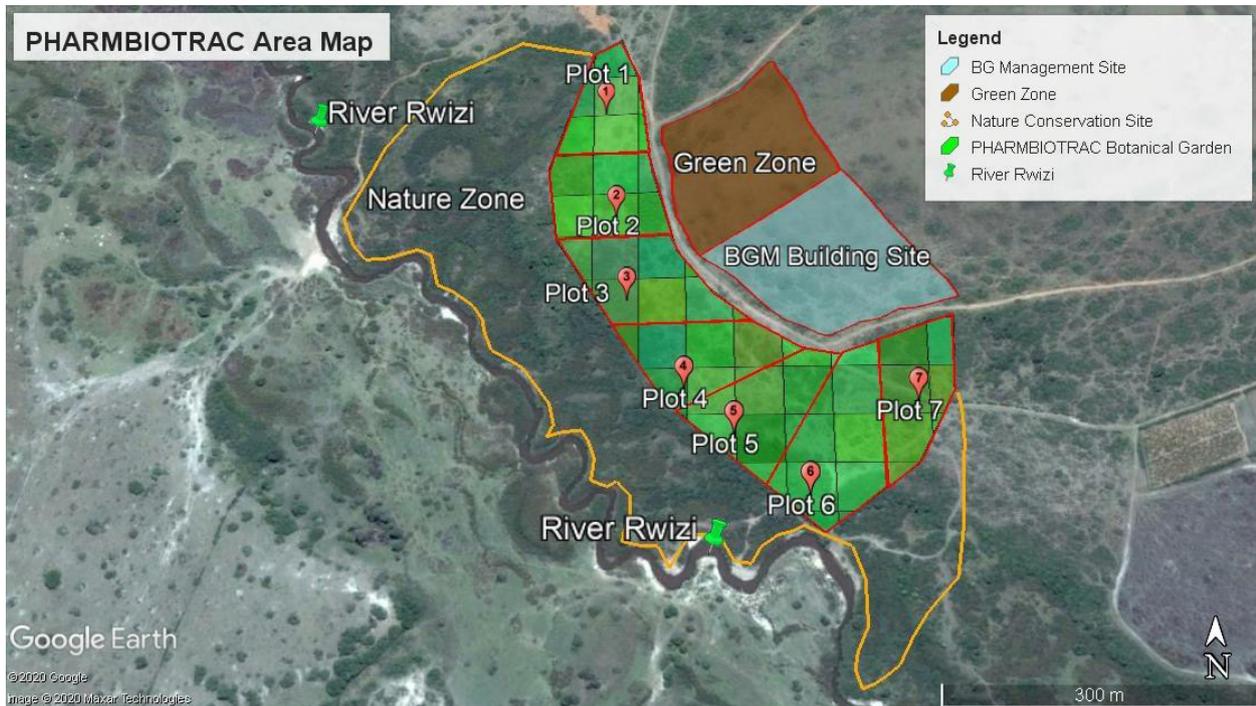
Artistic Impression of Some Elements of the Garden

Main Gate outside view

Main Gate inside viewing the reception

Signage and walk ways

General impression of landscaping

The PHARMBIOTRAC Regional Incubation Hub

The PHARMBIOTRAC Regional Incubation Center was established at MUST with a major focus on strengthening the incubation of traditional medicines and biopharmaceuticals at Mbarara University of Science and Technology Regional Centre for Innovations and Technology Transfer. The Incubation Center is aimed at supporting academicians, students and innovators to start up businesses, and develop, register and commercialize trademarks, copyrights and patents in an attempt to transform universities as major drivers of the regional economy. The main objectives of the centre are to:

(i)   Attract students, faculty, knowledge holders and entrepreneurs into incubation teams and mentor them to sustainably commercialize innovations in Traditional medicine and pharma biotechnology,
(ii) Attain certification of the centre's production unit and products by relevant bodies in the region to enable their commercialisation,
(iii) Build start-up businesses and networks for the commercialization of TM and pharm biotechnology products in the region,
(iv) Disseminate and commercialise research outputs of the incubation centre to the public who are the end beneficiaries for the improvement of their health and productivity.
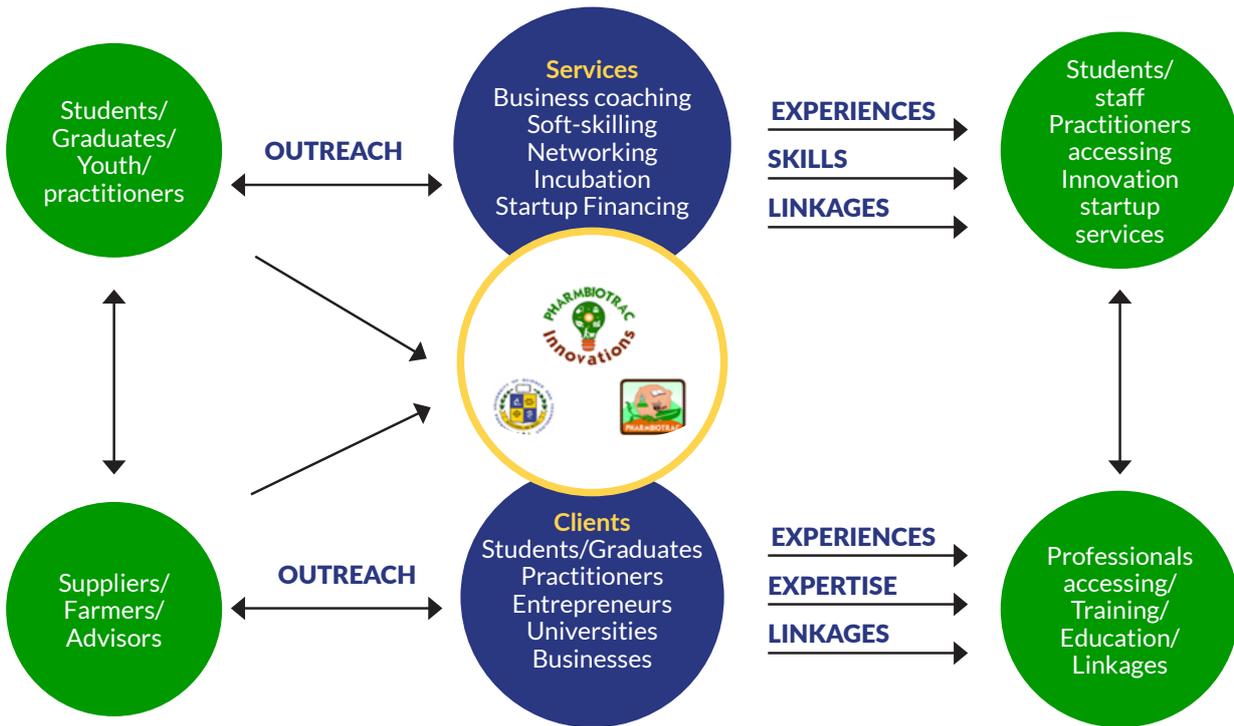
15.9 Product development and Innovation

In an effort to transform universities as major drivers of economic development through applied science and innovations, PHARMBIOTRAC established the Regional Incubation Hub. Since its inception in 2019, the hub focuses on natural products including among others medicines (Traditional and Complementary Medicine and biopharmaceuticals), cosmetics, nutraceuticals, excipients, and beverages. It has developed and incubated over 50 products and prototypes and over 30 incubatees (start-up companies), 17 products (34%) have reached commercialisation stage (market). The rest of the products backed by a wealth of research work accumulated over the years are at various stages of the development process.

15.10 Manufacturing

In order to ensure that the product innovations from the university and other innovators in the region satisfy both qualitative and quantitative market demands, PHARMBIOTRAC established a robust contract manufacturing facility for Traditional and Complementary Medicine (TCM) industry which is still rudimentary and lacks competitive advantage in terms of quality and international standards. This has leveraged on the costly requirements for GMP (Good manufacturing Practice) certified facility for innovators and also made it easier for SMEs in the TCM and biopharmaceutical sector to produce high quality products and in the quantities commensurate to the market demand. The facility is now being used by current and incoming innovators to get National Drug Authority (NDA) and UNBS (Uganda National Bureau of Standards) approval especially for natural products. This is a huge milestone in bridging the gap between science and the industry.

15.11 The PHARMBIOTRAC Regional Incubator Framework

Students/ Graduates/ Youth/ practitioners

OUTREACH

Services
Business coaching
Soft-skilling
Networking
Incubation
Startup Financing

EXPERIENCES →
SKILLS →
LINKAGES →

Students/ staff Practitioners accessing Innovation startup services

PHARMBIOTRAC Innovations

Suppliers/ Farmers/ Advisors

OUTREACH

Clients
Students/Graduates
Practitioners
Entrepreneurs
Universities
Businesses

EXPERIENCES →
EXPERTISE →
LINKAGES →

Professionals accessing/ Training/ Education/ Linkages

Employment Opportunities And Income Generation Diversification Of Business Options Based On Natural Resources

Incubates with business innovations and vibrant entrepreneurship

Partnerships (Private and public
- Mentorship
- Markets
- Registration
- Quality assurance
- Certification
- Expert training
- Investor/financing linkages
- Intellectual property (IPR)

Innovations and Enterprise Development leading to startups/ improved businesses

Training section
- Business Management
- Enterprise selection
- Business planning
- Financial Literacy
- Corporate Identity
- Sales & Marketing management
- Leadership skills
- Risk analysis and Risk Management

Coordinating Unit

Summary of Key Achievements of PHARMBIOTRAC Regional Incubation Hub

Annual enrollment incubatees by gender and participant category

Participant Category	2021	2022	2023-2024	Total
Female	20	13	2	**35**
Male	30	34	15	**79**
Internal Students	12	12	10	**34**
Internal Saff	4	3	4	**11**
External	34	32	3	**69**

Diversity of Startups: Analyze the diversity of industries and categories of incubatees (students, staff, participants from outside the university).

Diversity of industries and categories of incubatees

Product category	2021	2022	2023-2024	Total
Medicine	36	19	19	**74**
Cosmetics	13	18	2	**33**
Beverages	10	4	5	**19**
Excipients	14	5	0	**19**
Other	3	8	0	**11**
				156

Excipients = Pharmaceutical Manufacturing materials

Graduation Rate of Startup Companies Incubated at PHARMBIOTRAC

Details	2021	2022	2023-2024
No. startup companies enrolled	15	15	4
No. startup companies registered	14	10	4
No. of graduates	11	8	0
No. of graduates with products	11	8	0

Product Developed and Launched to the Market by PHARMBIOTRAC Incubatees

Total Number of products developed	156
Number of products launched (market stage)	53
Percentage launched (%)	34

Annual Intellectual Property Registered by PHARMBIOTRAC Incubatees

	2021	2022	2023-2024	Total
Trademarks filed by startups	14	4	6	24

Impact of the PHARMBIOTRAC Regional Incubation Hub on University and Community
- **Knowledge Transfer:** Number of technology transfer agreements and patents filed.
- (i) 34 MoUs have been signed between the incubatees/ startups and PHARMBIOTRAC-MUST to facilitate commercialization of 53 (34 %) of product innovations

(i) Two products developed with partner industries – Covidex (Jena Herbals Ltd) and Vidicine Syrup (Kazire Health Products) are successfully been tested at clinical level and are currently under commercialization

- **University Reputation:** Improvement in the university's reputation and brand image.

The incubation center has been a huge milestone in transforming MUST as a major driver in economic development and industrialization. It has helped tremendously in bridging the gap between basic research in academia and the industry through technology transfer and collaborative projects. PHARMBIOTRAC Incubation Hub has also been successful in incubating a range of innovations. Notably, the Covidex product, a herbal remedy for COVID-19. The Centre's incubation approach accelerated national regulatory emergency approval of the product for use against the COVID-19 pandemic. The Covidex innovation spanned all continents and races and remains a national treasure and pride in Uganda, thus raising the brand image and reputation of the University.

Due to Covidex and many other production innovations being launched from the PHARMBIOTRAC Incubation Hub, the center and MUST became more famous and respected with more national and regional students now applying to study here, hence a true sense of internationalization of the Higher Education Sector on African Continent. More industry partners and innovators are now approaching MUST (especially PHARMBIOTRAC) for collaboration and guidance on natural product development and manufacturing.

15.12 Alumni Network

PHARMBIOTRAC has established the Friends of PHARMBIOTRAC Foundation which rallies all the alumni and development partners to further the interests of the incubation center. This platform has helped in strengthening the engagement with alumni who are willing to contribute and support the sustainability goal of the hub.

The Foundation is incorporated both in Uganda as an NGO and USA as a 501(c)(3) tax-exempt organization, registered in the state of Minnesota with the main goal of enhancing education, creating jobs, and setting a new standard for equitable development in Africa. For more information about the FPF, please visit: https://pharmbiotracfoundation.org/ The center also continues to engage the alumni to participate in various activities, training programs, and joint grant proposals.

Some Innovation Incubated under PHARMBIOTRAC Regional Incubation Hub

SN	Innovation	Photos
1	Pearl Jelly Developed from Ugandan purified cow ghee as the main active ingredient. Cow ghee is an excellent cosmetic and skin nourishing butter that has been used for decades in western Uganda. Standard Jelly formulation branded Pearl Jelly, a natural blend of purified cow ghee with other materials all from the Pearl of Africa (Uganda).	
2	BeetRoot based Yoghurt Yoghurt that is naturally free from synthetic additives and preservatives utilizing available natural sources like natural green sugar (stevia) as a sweetener, beetroot as natural colorant/preservative and essential oils for flavour and aroma.	

SN	Innovation	Photos
3	**Hilaos Aftershave** Effective and low-cost natural lemon aftershave which is herbal and chemical free with a long shelf life through application of scientific and traditional techniques. The Product uses 100% natural ingredients including Lemon, Aloe Vera and selected essential oils.	
4	**Coffee Cream, Lotion and Soap** coffee bases cosmetic line including skin cream, body lotion, bar soap and hair oils.	
5	**Insotab Teabags** Nature-based formulation, in capsule and herbal tea bag form, under the trade name InsoTab. The innovation is aiming at providing a relief to Insomnia patients, without necessarily causing long-term side effects associated with conventional treatments of Insomnia like stress and depression.	
6	**Songa Fine Drink** Effective and safe natural energy drink with no adverse side effects like other caffeinated stimulants. It has extra benefits like sexual strengths, flue and cough relief indigestion Songa Fine drink has excellent taste.	
7	**LIN-RAYON Cosmetics** This product is targeting acne which is a disorder characterized by hormonal changes, excessive sebum production, micro-organisms and dead skin cells that build-up in pores. The innovation therefore embarks on development of a safer and effective product.	
8	**Victor Painfree** A liquid herbal product which has been pre-clinically tested for efficacy and safety. It's administered orally for some acute pain e.g. menstrual pain, stomach upsets. Chronic pain e.g. Low back pain, joints' pain, general body pain, and cancer pain except headache.	

SN	Innovation	Photos
9	PLECTINC Essential oil based growth promoters is a key solution to antibiotics characterized by antibiotic resistance, residual effects in food chains and detrimental side effects to animals. In addition some antibiotics have a lot of contra-indications. Hence our natural essential oil based product shall help farmers to get rid of all these challenges at a cheap cost.	
10	WellWound This innovation exploits the proven effectiveness of fish peptides extracted from fish skin mucus for development of a biopharmaceutical product for chronic wound management. Active compound produced in a tank-based African lungfish rearing unit from which peptides <5kDa have been isolated.	
11	Videx Pain Tincture A potent herbal tincture through skilled combination of herbs with strong analgesic effect, fast physical pain relief. The tincture is used to manage headache, Musculo-skeletal pain, menstrual pain, nerve pain, urinary tract pain and toothache.	
12	Blackjack Herbal Tea Useful in the treatment; Respiratory infections, Ulcers, Joint inflammations and abdominal complaints, Headache & Fever. Black jack herbal tea is free from caffeine and additives compared to other teas	
13	RheumaHeal Anti- inflammatory activity Anti-arthritic activity Analgesic activity Mechanism of action: Reduction in inflammation & destruction of joints via lessening the proinflammatory cytokines expression	
14	Kachiks Formula & Immuno-Kachiks Natural Preventive Solution to Amputations in Diabetic Patients. Treating "non-healing" ulcers (diabetic wounds) that are infested with drug-resistant microbes	
15	Gashom Aloe Vera Jelly Jelly with herbal extracts containing phenolics, flavonoids & tannins with antioxidant, anti-in-flammatory, anti-bacterial, anti-fungal & skin-tis-sue regeneration activities.	

SN	Innovation	Photos
16	**HEB Classic Lip Balm** It has essential oils such as coconut, peppermint, lemongrass and shea butter that moisturize, heal and nourish the lips	
17	**Standardized Antimalarial Polyherbal Syrup** Standardized antimalarial polyherbal syrup, rich in antimalarial ingredients, effective & safe	
18	**Neem+** NEEM plus a herbal pesticide that is effective in 2-3 days and can easily be accessible. NEEM plus contains a mixture of scientifically extracted actives from 3 different plants and this synergistic effect improves its performance	
18	**Neem+** NEEM plus a herbal pesticide that is effective in 2-3 days and can easily be accessible. NEEM plus contains a mixture of scientifically extracted actives from 3 different plants and this synergistic effect improves its performance	
19	**BigHen** Grow promoter for chicken, Organic feed additives, that are essential for life of their birds and delivered in the most flexible and tailored way	
20	**Growth and Scalp Seal Oil** Contain natural pols including Peppermint oil, Avocado oil and Coconut oil	
21	**NovaCAP innovation** Turning locally produced pharmaceutical grade starch and cellulose into hard capsules shells (non-gelatin)	

Logos of some of the start-up companies from the PHARMBIOTRAC Regional Incubation Hub

15.13 The MUST Inaugural Career Fair

PHARMBIOTRAC and the Friends of PHARMBIOTRAC Foundation (FPF) organised the first ever career fair at MUST termed as the "MUST Inaugural Career Fair" which was held on Wednesday August 28, 2024 at MUST Kihumuro main campus, located 7km along Mbarara - Bushenyi Road. The event brought together over 3,000 students, alumni, and employers from various industries, providing a platform for networking, career exploration, and employment opportunities. The Chief Guest was the Vice President of the Republic of Uganda, H.E. Maj. (Rtd) Jessica Alupo, who was represented at the event by the Minister of Trade, Industry and Cooperatives, Hon. Francis Mwebesa.

Over 50 employers participated at the career fair, representing various sectors of the economy and were able to engage students and alumni, thereby providing opportunities for the students to explore various career paths, expand their professional network, and gain valuable insights and skills.

The overarching objective of this event was three-fold – (1) to facilitate connections between students, alumni, and employers, thereby providing an extensive support in navigating the transition to the professional world, (2) to provide career development opportunities and resources; and (3) to enhance the university's reputation as a hub for talent and innovation.

The event achieved a significant number of outcomes for students, alumni, and employers who reported satisfaction with the event; and an overwhelming majority of employers expressed interest in participating in future career events at MUST.

> **" The event brought together over 3,000 students, alumni, and employers from various industries, providing a platform for networking, career exploration, and employment opportunities."**

15.14 Graphics and Photos

Career Fair Speakers' poster for plenary session

Career Fair Speakers' poster for parallel sessions

First Career Fair Planning Meeting held on 29th June, 2024 in PHARMBIOTRAC Board room, Kihumuro Campus

15.15 Social Media poster for side events

Ushers in distinctive reflectors for easy identification during the career fair

Poster inviting Career Fair participants to fill the online form

Touring of the Exhibition

Some of the Exhibitors showcasing their products to the chief guest accompanied by other guests.

Speeches in the Plenary

Miss LameezDavids a representative from the Education Collaborative making her remarks during the career fair

Dr. Eng. Silver Mugisha - The Executive Director of National Water and Sewerage making his remarks during the career fair

Vice Chancellor Professor CelestinoObua(left) and Hon. Francis Mwebesa (right) the Minister of Trade, Industry, and Cooperatives making their remarks during the career fair

Launching of the Friends of PHARMBIOTRAC Foundation

Official Launch of the Friends of PHARMBIOTRAC Foundation by the Chief Guest Hon. Francis Mwebesa. In attendance were the Vice Chancellor of MUST, Professor CelestinoObua,Dr. Eng. Silver Mugisha, Prof. Robert Tamukong, President FPF and Dr. Casim Umba Tolo, PHARMBIOTRAC Center Leader, and CEO FPF

Official cutting of the cake by the Chief Guest Hon. Francis Mwebesa, flanked by FPF Board members, some PHARMBIOTARC Staff and esteemed guests, of the event.

Students

Some of the pupils from Mbarara Preparatory School and University students during the career Fair

Site event sessions in the afternoon

Mr Ethan Musolini parallel session on Strategies to enhance graduate employability outcomes & writing a winning CV

Prof. Robert Tamukong one of the facilitators engaging the students to write all the apps they assume not to be much of importance in their phone during one of the parallel session on Scholarship Information & Writing Effective Personal Statements

Dr. Jane Frances Kengeya-Kayondo, Founder and CEO, Rounding Up the Edges (ROUTE) International Ltd facilitating a session on Life Skills & CV Writing during the career Fair

15.16 Recognition and Awards Received

Date (month/year)	Details	Award Recipient
2023	Gift of innovations in the health sector as a Christian, St. James Chapel MUBS	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)
09/2023	Appreciation Award for Saving lives during Covid-19 Pandemic, Awarded by Victoria University (Uganda) during 7th Graduation Ceremony.	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)
01/2023	Premium Award for an informative presentation: My inspiration to join the fight against Covid-19 Pandemic – the story of Covidex. Awarded by Rotary Club, Bweyogerere Uganda.	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)
2022	Covid-19 Hero, Awarded for fighting Covid-19 Pandemic using Indigenous Knowledge and Herbal Medicine, By Global Peace Foundation	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)
11/2022	East Africa Exceptional Scientist Award in recognition for dedicated service to the East African Community, By Karibu East Africa Presidential Awards.	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)
2021/2022	Vocational Service Award 2021/2022 for dedicated and out-standing service to the community through the medical vacation and particularly towards the fight against Covid-19 pandemic. By Rotary Club of Muyenga, Kampala Uganda	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC), Dr. Casim Umba Tolo (Center Leader, PHARMBIOTRAC), Mr. Angupale Jimmy Ronald (Product Development Officer, PHARMBIOTRAC)

2022	Best Research Pharmacist: Awarded by Pharmaceutical Society of Uganda (PSU).	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)
12/2021	Honorary Award for excellent service to humanity. By Network for Education & Multidisciplinary Research Africa (NEMRA)	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)
2022	Lifetime Achievement Award: for dedicated life to the pharmacy profession, community development. By B. Pharmacy students, Mbarara University of Science and Technology.	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)
12/2021	The 9th Visionaries of Uganda Award on the occasion of being honoured as visionary by the people of the Republic of Uganda for outstanding contribution towards Uganda middle income status aspiration and Vision 2040. By the Government of the Republic of Uganda.	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)
12/2021	Covid Lifeline Award Individual, Certified Public Accountants (CPA)	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)
08/2019	The Aider 'Ultimate Award', in recognition for medical research work, and use of Artemisia annual tea to prevent malaria, at the Ateker International Convention, Germany.	Prof.Ogwang Patrick Engeu (PI, PHARMBIOTRAC)

15.17 Lessons learnt

Based on the performance review during the past three years of implementing the 2020/2021-2024/2025 plan, a number of major lessons have been considered while developing the current 2025/26-2029/2030 plan.

(i) Strategies need to set fewer, and achievable targets

(ii) Need for more resources to elevate/upscale promising innovations towards commercialization, and this needs more funding for incubation centre, create sustainability arm of the centre e.g. Friends of PHARMBIOTRAC Foundation,

(iii) Building physical spaces for startups to produce (incubation hub with suitable spaces for natural products manufacturing and GMP compliant),

(iv) Need to partner with industries and investors to uptake these promising products for large scale manufacturing, marketing and distribution,

(v) Seeking partnership with potential funding bodies e.g., foundations and development partners for upscaling the innovation incubation programme at the centre,

(vi) Important to have a post-doc position for attracting vast talent (in house and regionally) to the centre to do research and postgraduate training.

NDP III addressed

(i) Enhance value addition in key growth opportunities (SO1)

(ii) Strengthen the private sector to create jobs (SO2)

(iii) Enhance the productivity and social wellbeing of the population (SO4)

Therefore, PHARMBIOTRAC operations will fast-track the realization of NDP III Programmes including 1) Agro-industrialisation 2) Innovation, Technology Development, and Transfer, 3) Manufacturing 4) Energy Development and 5) Mineral Development. There is a lot the research institutions gain from these partnerships and a lot more the productive sector/industry and the community gain from such collaborations thereby contributing to the overall transformation of the country.

SDG addressed

(i) Ensure healthy lives and promote well-being for all at all ages (G3),

(ii) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (G4),

(iii) Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (G9),

(iv) Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development (17).

Future details of PHARMBIOTRAC activities relating to FY 2022/2023 are available at:

(v) PHARMBIOTRAC website: http://pharmbiotrac.must.ac.ug

(vi) Friends of PHARMBIOTRAC Foundation website: https://pharmbiotracfoundation.org

16. CENTRE FOR INNOVATION AND TECHNOLOGY TRANSFER (CITT)

Photo 1: Members during the MUST Holdings Company and TISC Launch on November 20, 2024

16.1 Introduction

The Centre for Innovations and Technology Transfer (CITT) was set up by the 68th University Council in February 2018 as a one stop coordination point for all innovations, skilling initiatives and technology transfer at Mbarara University of Science and Technology. It is mandated to coordinate all innovation hubs, innovation projects and innovation clubs at MUST and scale-up the innovation capacity of MUST. It was set up to satisfy the need to coordinate all University innovations, skilling and technology transfer from all faculties and students. The Centre provides overall coordination for innovations and mentors, Faculties and other academic and research units in the innovation, skilling and technology transfer ecosystem within the University. In implementing its mandate, CITT uses a uniquely designed CITT model to support innovators from the brainstorming/prototyping stage to the technology transfer phase where the innovations are produced to physical tangible products that have market value.

16.1.1 CITT Mission
To create a multidisciplinary ecosystem to inspire, nurture and promote the conversion of innovative ideas into commercially viable and sustainable products and businesses.

16.1.2 CITT Vision
To be a global Centre of excellence in affordable technology innovation and commercialization, skills development and entrepreneurship.

16.1.3 Key functions / objectives
CITT carries out multiple functions born out of the mandate handed out by Council. These functions are born out of the strategic objectives CITT aims to achieve.
(i) To provide additional training to less skilled and unskilled graduates and prepare them to apply knowledge to experience with new skills, new attitudes and or new ways of thinking.
(ii) To develop capacity and nurture the spirit of innovation, entrepreneurship and technology transfer among MUST Staff, Students and the community.

(iii) To source for funding towards innovation, technology transfer, retooling and skills development activities at MUST.

(iv) To develop partnerships between academia and industry that will accelerate innovation, technology transfer and commercialization.

(v) To cultivate capabilities suiting emerging job markets and build entrepreneurship spirit and business management competencies among employable groups to create employment for themselves and others.

(vi) To establish a job recruitment and selection center for different institutions, organizations and agencies.

16.2 Student numbers in various Programs

Over the Financial Year 2024/2025, CITT has trained a total of 60 students (16 females and 44 males) from 30 Innovation teams during a Product Development Workshop training.Each of the 30 teams was represented by 2 team members at the workshop. The workshop led to the award of Product Development Grants worth UGX 21,000,000each to 4 teams and UGX 16,650,000 each to 2 teams. 2 of these innovation teams are female led.

16.3 Staffing and Staffing Gaps

Currently, the CITT is composed of only five full time MUST staff and they include the Director, Deputy Director, Senior Prototyping and Technology Development Officer, Commercialization Officer and the Office Attendant. The Director and Deputy Director are both Senior Lecturers, The Senior Prototyping and Technology Development Officer and the Commercialization Officer hold a master's degree while the Office Attendant holds a post graduate in Public Administration and Management.

S/N	Name	Position	Gender
1	Dr. Medard Twinamatsiko	Director / Senior Lecturer	Male
2	Dr. William Wasswa	Deputy Director / Senior Lecturer	Male
3	Mr. Mukama Martin	Senior Prototyping and Technology Development Officer	Male
4	Ms. Annah Amwikirize	Commercialization Officer	Female
5	Ms. Atuhaire Angella	Office Attendant	Female

There are still staffing gaps at the Centre of Innovation and Technology Transfer as some key departments under the Center are not staffed which hinders the successful implementation of the Centre's activities. The critical staff needed are;

S/N	Staff Needs	Key role	Nature of Work
	Senior Experiential Learning and Practical Skills Training Officer	To lead on the skills training component of the centre and experiential learning	Full time
2.	Intellectual Property Officer	To build capacity for the generation of Intellectual Property (IPs) such as Patents, Trade Marks, Utility Models, Industrial Designs etc and also register these IPs	Full time
3.	Administrative Assistant/ Secretary	To coordinate staff on the day to day office operations of the Centre	Full time

16.4 Training and Learning at the Centre

Currently, the CITT Co-CreationSpace/Laboratory has prototyping equipment although they are not adequate. The equipment housed in the CITT Prototyping lab includes 2 3D printers, 2 3D Scanners, a laser cutter, plotter cutter, heat moulder, foam cutter, toolbox, studio equipment, podcast equipment, two 85 inch TVs and sensors for rapid prototyping.

16.5 Quality Assurance Mechanisms

In 2024, CITT developed and put in place internal quality assurance mechanisms and methods. The teams trained during the CITT Product Development and Scientific Writing workshops are provided with evaluation forms on which they rate the sessions covered during the day and the facilitators' competences. This feedback is collected and analysed by CITT management and the necessary actionable steps are taken.

Furthermore, the trainers are equipped with skills by a carefully selected set of expert facilitators from within the University and the partners CITT collaborates with to deliver expert guidance to the innovators such as StartHub Africa, URSB, UIRI, UNBS and NDA.

Innovators are also taken through an incubation and mentorship programme guided by the Mentorship and Coaching guidelines and non-disclosure agreements. Under the mentorship programme, each innovation team is asked to choose a staff mentor from within the University Academic staff that has worked on a similar innovation or research to guide the innovators throughout their incubation period with CITT. The Innovation funds are channelled through the University mentor's account to ensure total transparency and accountability of the funds and to ensure the innovation teams deliver top quality innovations.

The third quality assurance mechanism designed at CITT is the periodic progress presentation by the teams funded by CITT under the Research and Innovation Funds (RIF). Periodically, the innovation teams are invited to CITT offices to interface and present their progress to the CITT management and other expert reviewers. During these presentations, CITT is able to determine the progress of each of the teams and determine areas in which the teams are scoring well and the weak points where the teams need help. By this mechanism, CITT ensures teams are on track and their innovation targets are met within the specific deadlines.

16.6 Innovation outputs and on-going research in 2024

16.6.1 Innovation Support and Product Development

S/N	Team	Beneficiaries (Team leader and Mentor/co-grantee)	Amount Advanced	Team Description	Level of Funding
1.	Mobicare	Ms. Nuriat Nambogo	16,650,000	An application that links patients directly to doctors	Product Development
2.	Primitivus	Mr. Keith Kwagala	16,650,000	An early stroke detection device	Product Development
3.	SIMS	Mr. David Bamutura	21,000,000	A cutting-edge system set to streamline academic management at MUST	Product development
4.	LASS	Ms. Auma Eunice	21,000,000	A medical device ensuring accurate and precise medical diagnosis	Product development
5.	Smart Kuku	Mr. Etyang Aaron	21,000,000	A poultry brooding solution designed to enhance efficiency and productivity in poultry farming	Product development
6.	GO-PEYN	Mr. Kalumba Julius	21,000,000	A fast-acting Ayurveda organic therapy for quick relief from joint pains, nasal congestion and headache	Product development

16.6.2 Pedagogy Certificate Course

The Centre has developed the Competence-Based Framework for Mbarara University of Science and Technology in addition to the Institutional Pedagogy Certificate Short Course that aims at enhancing the quality of teaching and Learning. The workshop was organized under the UNESCO CFIT project with the primary objective of discussing, reviewing materials, and developing the competence-based framework. This framework is a key output of the UNESCO project aimed at enhancing the capacity of academic staff to train industry-ready graduates who can easily transition into employment.

16.6.3 Capacity Development Trainings

CITT hosted the mini workshop for developing the competence-based framework was held on 23rd October 2024 at the Mbarara University of Science and Technology (MUST) Kihumuro Campus, in the Centre for Innovations and Technology Transfer (CITT) co-creation space. The workshop successfully laid the foundation for the development of a competence-based framework tailored to the needs of MUST. Participants acknowledged the importance of continuous engagement with industry stakeholders to ensure the framework remains relevant and effective.The next steps include refining the draft framework based on further consultations, piloting its implementation, and rolling out training sessions for academic staff. The UNESCO CFIT project team remains committed to ensuring that the framework contributes to producing graduates who are well-prepared for the job market.

CITT also held the Product Development Workshop from 17th-21st September 2024. The event took place in the CITT Co-Creation Space, FAST Building, Kihumuro Campus. The workshop aimed at equipping participants with practical knowledge on leaning product development, business strategy, and market analysis and twenty (20) competing teams participated, receiving expert guidance from facilitators from Start-hub Africa, URSB, UNBS and MUST (CITT). The Director CITT Dr. Medard Twinamatsiko highlighted the University's commitment to fostering entrepreneurship and innovation and also emphasized CITT's role in supporting innovative ideas and turning them into market-ready solutions.

Photo 5: The Director CITT Dr. Medard Twinamatsiko Katonera facilitating one of the training on Problem Refinement during the workshop

Plate 6&7: Innovators who participated in the product development workshop from 17th – 21st September 2024

Photo 8: Trainers and Training of Trainers pose for an ice breaking photo during the UNESCO-CFIT pedagogy training

This further increased a deeper understanding of product development, commercialization, and business strategy for all the teams that managed to take part and they were equipped to navigate the challenges of entrepreneurship, with a strong foundation in the key areas necessary to bring their products to market successfully.

Additionally, CITT housed the UNESCO- CFIT pedagogy training program for trainers (TOT) for the institutional pedagogy certificate at Mbarara university of science technology successfully achieved its objectives. With participants gaining valuable skills and knowledge in Curriculum Design and Implementation, Class Management, Guidance and Counselling, Pedagogies of the 21st Century, ICT and Digital Pedagogy, Gender and Inclusive Pedagogy and Philosophy of Teaching. The feedback and assessment results indicate a positive impact and the recommendations provided aim to enhance future training initiatives.

16.7 The MUST Holdings Company Limited

The Centre for Innovation and Technology Transfer facilitated the birth of the MUST Holdings Company Limited. The Holdings Company was officially registered and incorporated on July 5, 2024 by the Uganda Registration Services Bureau. This Financial Year 2024/2025, CITT launched the Mbarara University Holdings Company Limited and the Technology and Innovation Support Centre by Uganda Registration Services Bureau (URSB) and World Intellectual Property Organisation (WIPO) on November 20, 2024 successfully and as of now, the company is fully set and functioning.

Photo 9: The Director CITT Dr. Medard Twinamatsiko Katonera giving a tip of the MUST innovation ecosystem

Photo 10: The Vice Chancellor MUST giving Official opening remarks during the launch of the MUST Holdings Company Limited

Photo 11: The Vice Chancellor together with invited guests during the official tour of the innovators exhibitions.

Photo 12: Members of Top Management and the innovators during the Launch of MUST Holdings Company Limited

Photo 13: The MUST Holdings Certificate of Incorporation awarded on July 5,2024

The MUST Holdings Company shall be the business arm of the University Will ease access to market by innovators and launch their products. This company is also expected to collect royalties from the innovations on behalf of the University. The creation of the MUST Holdings Company is expected to increase the revenue base of Mbarara University of Science and Technology through commercialization of innovations and inventions of staff and students, managing the University business entities/investments as business and providing opportunities for engagement of private partners to improve service provision and revenue generation for the University

16.8 Collaborations and Partnerships Built

Partner	Year Established	Area of Collaboration	Outcome
Uganda Registration Services Bureau (URSB)	2024	Intellectual Property and Patent Rights filling for Innovators	To support innovators, secure their intellectual property rights.
Cyber school	2024	Internet connection	To provide quick internet access for the Innovation co- creation space.
Uganda National Bureau of Standards (UNBS)	2024	Standardisation and certification of products	Certification of innovators products
AP University of Applied Sciences and Arts	2024	Training and skilling students	Enhanced capacity of MUST
Nile Breweries	2024	Training and skilling students	Enhanced capacity of MUST
National Agricultural Research Organisation	2024	Joint Research and Innovation Outputs	Innovative Products

Photo 14: The Vice Chancellor and Representatives from Nile Breweries during the MoU signing.

Photo 15: Top Management members overjoyed after signing an M.o.U between MUST and Nile Breweries

16.9 Performance on Cross Cutting Issues

The activities at CITT continue to be influenced by the National Development Plan III whose vision is to transform the Ugandan Society from a peasant to a modern and prosperous country. In this, the CITT framework fits into the NDP's theme of "sustainable industrialization for inclusive growth, employment and wealth creation." The commitment of CITT to the NDP III is evidenced by the practical and hands-on training given to the innovators incubated under CITT. The modern state of the art prototyping equipment at CITT that enables innovators easily fabricate their products and hit the markets.

CITT is also heavily invested in achieving the Sustainable Development Goals (SDGs) as well as gender inclusiveness as witnessed by the innovations from 2024/2025 shown in the table below.

S/N	Team	Beneficiaries (Team leader and Mentor/co-grantee)	Team Leader's Gender	Team Description	SDG Addressed
1	Mobicare	Ms. Nuriat Nambogo & Dr. Barnabus Atwine	Female	An application that links patients directly to doctors	SDG 3: Good health and well being
2	Primitivus	Mr. Keith Kwagala & Dr. William Wasswa	Male	An early stroke detection device	SDG 3: Good health and well being
3	SIMS	Mr. David Bamutura & Dr. Simon Kawuma	Male	A cutting-edge system set to streamline academic management at MUST	SDG 4: Quality Education
4	LASS	Ms. Auma Eunice & Eng. Dennis Igambi	Female	A medical device ensuring accurate and precise medical diagnosis	SDG 3: Good health and well being
5	Smart Kuku	Mr. Etyang Aaron & Dr. Sarah Nabachwa	Male	A poultry brooding solution designed to enhance efficiency and productivity in poultry farming	SDG 9: Industry, Innovation and Infrastructure
6	GO-Peyn	Mr. Kalumba Julius & Mr. Milton Wesuta	Male	A fast-acting Ayurveda organic therapy for quick relief from joint pains, nasal congestion and headache	SDG 3: Good health and well being

Photo 16: Members who attended the Intellectual property filling training workshop

16.10 Future Plans for 2025

Micro-Essential Innovative entrepreneurship-based short courses:
The Centre for Innovation and Technology Transfer submitted a list of four innovative entrepreneurship short courses to the Directorate of Industrial Training (now UVTAB) and we hope to roll them out in 2025. These courses include; Entrepreneurship and Enterprise Development; Organic Farming Technologies; Organic Health Drinks Development and Innovation and Digital Application Development. These will enable the innovators and other youths to access practical skills relevant for the current job market and also give innovators a cutting edge in the market.

Full operationalisation of the MUST Holdings Company Limited:
We intend to fully operationalise the MUST holdings Company – a business arm of MUST. This will be through strategic partnership arrangements with industry and building a strong commercialisation component of the Holdings Company.

Commercialisation of the Most Outstanding MUST innovations:
We hope that Government of Uganda and MUST Management will prioritise commercialisation of outstanding innovations in the MUST ecosystem.

Strategic Partnerships:
CITT also plans on engaging and signing more strategic MoU's with entities involved in the innovations eco-system domestically and internationally. These will equip the staff and innovators at CITT with exposure and resources to deliver better innovations and products that can compete tremendously on the current markets.

Capacity Development of Innovators:
We will keep supporting innovators through scientific writing and product development workshops; intellectual property training and ideation innovation cafes.

Registration of Intellectual Property:
We target to register 12 intellectual Property for MUST and this will increase MUST visibility and translate this into commercial products through licences and loyalties.

I6.12 Conclusion

CITT has made significant strides in 2024 in supporting the innovators at Mbarara University of Science and Technology and has been able to generate tangible outputs. We express our sincere gratitude to the different partners, mentors, and the university administration for their ongoing support for CITT's mission and mission to be realized. The success of the innovators supported in 2024 is a testament to the collective effort of everyone involved. We pray that the Government of Uganda, Top Management and the University Council will allocate more funds to CITT to churn out innovation outputs.

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Succeed We Must