

Cultivating the Next Generation of Biosafety & Biosecurity Professionals

► Undergraduate BSc. Degree in Biosafety & Biosecurity

MMUST is currently accepting the first cohort of students to start the program in **January 2024!**



Introduction

Masinde Muliro University of Science and Technology's (MMUST) new undergraduate BSc. in Biosafety and Biosecurity is a collaborative effort with the International Federation of Biosafety Associations (IFBA) and the only one of its kind globally. The program is designed to meet the growing demand for qualified biosafety and biosecurity professionals to support national and global health preparedness and response. The program fills an important gap in building capacity to prevent, detect, and respond to biological risks by targeting pre-service students to complement existing initiatives in technical training and professional certification in biosafety and biosecurity disciplines.

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Regional Need for Dedicated Biosafety and Biosecurity Education

There is presently urgent need for biosafety and biosecurity professionals worldwide, including in Kenya and the greater East African region. The COVID-19 pandemic has brought into focus the significant demand on the profession and many countries across the African region face a shortage of these specialists. Working on the frontlines, and often behind the scenes, the profession remains largely unknown to students pursuing a career in the life sciences. As global governance and decision-makers are increasingly recognizing the lack of a dedicated career path in biosafety and biosecurity, there is an urgent need for formal education in this field.

Program Development

MMUST has completed and approved a new curriculum for a BSc. program specifically in biosafety and biosecurity in collaboration with IFBA and a diverse technical working group of local stakeholders and experts in the African region and globally. Funding support for the development of the new program has been provided by Global Affairs Canada's Weapons Threat Reduction Program under the Signature Initiative to Mitigate Biological Threats in Africa.

Curriculum Highlights

The new degree program's curriculum has been accredited by the Kenyan Commission for University Education and combines theoretical with practical learning to provide an in-depth understanding, extensive knowledge and skills in biosafety and biosecurity. All students undertake related core courses in the first two years of study, followed by specialized courses in biosafety and biosecurity with practical laboratory experience in their later academic years. Students are provided with a diverse range of courses covering topics such as biological risk assessment & mitigation, laboratory design & biocontainment, biological non-proliferation, and cyberbiosecurity. Students will also have the opportunity to learn from international biosafety experts from around the world.

Regional Impact and Next Steps

This new undergraduate degree program is timely and impactful, given expressed needs by regional stakeholders for graduates with developed competency to address biorisks. The experiences and lessons learned at MMUST will be shared with the international biosafety and biosecurity community for further implementation in universities globally. MMUST and IFBA are also working together with a coalition of international partners to support the cultivation of the next generation of biosafety and biosecurity professionals worldwide.



Scan the QR code for further details on program admission requirements and how to apply.
application.mmust.ac.ke/

