Malawi, like the rest of the world, is prone to both natural and manmade disasters. For developing countries like Malawi, the resulting fatalities in all social groups, critical infrastructure as well as environmental damage, undermine the hard won developmental achievements, thereby reversing economic growth and progress towards the elimination of extreme poverty. Investing in disaster preparedness is, therefore, important as this will reduce the need for humanitarian action when disasters strike.

v) BSc in Water Quality and Management

Water is an irreplaceable resource and critical for sustainable and socio-economic development as well as healthy ecosystems. If well managed, water can ease the globe from the burden of disease, leading to improved health, welfare as well as productivity of human populations. The water sector in Malawi is facing challenges such as degradation of water resources, inadequate promotion of hygiene and sanitation, as well as treatment and disposal of solid and liquid waste. The programme offers basic foundation including knowledge and skills as well as offering a broader perspective in water quality and management. Students will benefit through increased awareness of issues surrounding water quality, pollution and their management.

vi) BSc in Sustainable Energy Systems

Fossil fuel has been the main source of global energy over the years. However, fossil fuels are being depleted and their use emits greenhouse gases thereby contributing to climate change. As such, utilization of sustainable energy as an alternative to fossil fuels is at the top of both socio and economic agendas around the world. Sustainable energy systems are energy technologies that utilize renewable energy sources such as solar, wind, geothermal in addition to technologies designed to improve energy efficiency. Therefore, there is a demand for personnel with technological as well as social expertise in sustainable energy systems and thus, this four year programme will equip graduates with knowledge and skills relevant for sustainable energy industry in Malawi. Unlike other energy programmes, this one promotes hands-on experience on building and analyzing components of sustainable energy system and inculcates culture of developing new sustainable energy products as well as entrepreneurship.

vii) BSc in Petroleum GeoScience (Oil and Gas)

The presence of reliable and affordable energy supplies is key to advancement of modern life. In the developing world, including Malawi, socio-economic growth is seriously hampered by costly and limited energy supplies. It is apparent that for the country to develop there is need to increase the energy capacity. Presently, all petroleum and petroleum products are imported and Malawi spends about 10 % of its foreign currency reserves on these imports. The fuels are mainly used in transport sector and for power generation.
However, Malawi has potential to discover petroleum resources. But the oil and gas industry is very complex, as it requires highly trained and skilled personnel. Despite possessing the potential to become a petroleum producing country in the future, Malawi does not have adequate expertise in the exploration, exploitation and management of these resources.

Admission

MUST admits both local and international students as long as they have MSCE, O Level, A Level grades or their equivalents that meet the university's enrolment requirements.

Undergraduate Students

(i)Candidates must have at least six credits at MSCE, IGSCE or their equivalent which must include Physical Science or Physics and Chemistry, Biology, Geography, Agriculture and Mathematics with minimum grade of 3 points for MSCE or B for IGSCE in all the above subjects obtained. For purposes of selection, 'O' level grades shall be interpreted as follows: A*=1, A=2, B=3, C=5, D=7, EFG=8.
(ii) For Malawian students, selection to the University is coordinated by the National Council of Higher Education (NCHE). For foreign students, selection shall be based on merit and ability to pay all the required fees.

Fees:

(i) Malawian undergraduate students pay tuition of K450,000 per academic year.

(ii) Foreign students from SADC countries pay US$3,000 per academic year while those from other countries pay US$3,500 per academic year.

(iii) Other costs include K40,000 residence fee per semester; living expenses of approximately K500,000 per semester and medical insurance whose amount will be advised.

(iv) Postgraduate students pay US$5,000 as tuition fees but there are also charges for accommodation, thesis binding, research etc, all of which can be paid in Malawi Kwacha equivalents.

MUST Facilities

The university comprises three functional areas. The teaching and learning area includes the teaching block comprising 60 lecture rooms with sitting capacity of 6000 students, the teaching hospital, the administration complex, the library and science and technology building and the auditorium.
The sports area includes sports facilities such as an outdoor track field, basketball and volleyball courts and a football field. The living area includes student hostels and the service area.

MUST Contacts:

The University Registrar
Malawi University of Science and Technology (MUST)
Bingu Highway, off Robert Mugabe Highway,
Near Ndata Farm,
P.O Box 5196
Limbe
Tel: 265 1 478 000
Email: registrar@must.ac.mw
Website: www.must.ac.mw

OR

The Executive Dean, NSCES
Email: lkalindekafe@must.ac.mw

Ndata School of Climate and Earth Sciences

Where Excellence Reigns

History

The Malawi University of Science and Technology (MUST) was established on December 17, 2012 by the Malawi University of Science and Technology Act No. 31 of 2012 as the fourth public university in Malawi. It opened its doors to pioneer students in April 2014 but was officially opened by His Excellency the President, Professor Arthur Peter Mutharika on October 24, 2014. It currently has around 1,400 students both at undergraduate and postgraduate levels comprising Malawians and foreign students.
Situated near Ndata Farm in the cool and tea growing district of Thyolo in southern Malawi, MUST is some 27km from Limbe, a town in the country's commercial city of Blantyre.

The university comprises three functional areas: Teaching and learning, sports and living service.

The MUST campus occupies a total plot area of 215,000m^2 and has total building area of 46,000m^2. The student seating capacity of this university is 6000. Evidently, MUST, which is still young, fresh and growing, will hugely contribute towards government of Malawi's efforts to increase access to higher education and create the much needed pool of skilled and knowledgeable professionals to spur production by adding value to natural resources and other raw materials with the aim of turning Malawi from the undesirable position of being a net consuming and importing nation towards the country's vision of being a net producer and exporter.

University Vision

A world class centre of science and technology education, research and entrepreneurship.

University Mission

To provide a conducive environment for quality education, training, research, entrepreneurship and outreach to facilitate economic growth in Malawi and beyond.

University Core Values

Commitment, professionalism, integrity, competitiveness, openness to diversity, entrepreneurship and innovativeness

Schools

The University has adopted the model of having schools instead of faculties and currently has four functional schools, namely the Malawi Institute of Technology (MIT), Ndata School of Climate and Earth Sciences (NSCES), Bingu School of African Culture and Heritage (BISCH) and the Academy of Medical Sciences (AMS).

Ndata School of Climate and Earth Sciences (NSCES)

Its Executive Dean is Dr Leonard Kalindekafe, an Associate Professor who holds a PhD in Mineral Law and Policy from University of Dundee, Scotland, an MSc in Geology from a Joint programme under University of Malawi and Saskatchewan--Canada, and a BSc in Earth Sciences from University of Malawi. He has previously worked as Principal Secretary (PS) for Mining and the Office of the President and Cabinet (special duties), Director of Mines in Malawi; Director of Geological Survey Department in Malawi and geologist and has taught both on full and part time basis at University of Malawi, Chancellor College.

The NSCES has departments of Earth Sciences; Climate Sciences; Energy, and Water Resources Management. It opened its doors to students in 2015. It is mandated to provide training to both undergraduates and postgraduates and conduct research and outreach services in Earth and Climate Sciences for socio-economic growth and sustainable development of the country.

Academic Programmes under NSCES

i) BSc in Meteorology and Climate Science

Meteorology and climate science help us to understand and predict changes in the Earth's atmosphere. This is important in developing countries like Malawi whose socio-economic development is largely dependent on an agro-based economy. Over 85% of Malawi's population depends on rain-fed agriculture, which is highly vulnerable to frequent weather and climatic shocks such as floods and drought. Other important sectors of society that are also highly sensitive to weather and climate include tourism, disaster management, trade, aviation and health. Climate change and variability is an additional pressure on the country's socio-economic development, with Malawi being the most prone country in the sub Saharan Africa. Projected climate change scenarios in Malawi indicate an increase in temperature and erratic rainfall events, coupled with a decrease in total annual rainfall and water availability.

ii) BSc in Earth Sciences (Geology)

This four year course will provide students with basic foundation and a broader perspective in Earth Sciences. Students will benefit from this introductory level course through increased awareness of issues surrounding exploration and exploitation of mineral resources, petroleum, energy minerals, other alternative natural energy sources, planning of building sites and related engineering and seismological issues and underground water and environmental resources.

A degree in Earth Sciences from MUST provides a good basis for Geology, research and employment. Furthermore, the degree gives you expertise in undertaking field and laboratory investigation combined with team working, communication and analytical skills, which will enable you to work as an Engineering geologist, Geochemist, Geophysicist/Field Seismologist, Geoscientist, Hydrogeologist, Seismic interpreter, Oil, gas and petroleum expert, GIS and remote sensing expert.

ii) BSc in Geo-Information Science

Geographic Information Science (GIScience) is the science underlining the acquisition, visualisation and analysis of spatial data. It is an important tool for management of geo-spatial information. Since the advent of computerized geographic information systems in the 1960s, as well as the subsequent development of software and computing power, maps have become a much more widespread means for managing, analysing and communicating geospatial information. The extensive demand for geographic information science skills has entailed a significant role for geography. Indeed, although geographic information science is a multi-disciplinary endeavour, geographical theories have produced the bulk of what now comprises the core knowledge areas of the field. This four year programme is designed to provide all basic level information in GIS and remote sensing and their potential applications in Earth and climate science research. This programme falls under the Department of Earth Sciences.

iv) BSc in Disaster Risk Management

Disasters such as earthquakes, droughts, cyclones, floods, storm winds, landslides, emerging infectious diseases and pests such as locusts, tsunamis and lightning, often occur at the least expected time. Some of these, for instance cyclones, floods and droughts, are of late increasing in their severity, frequency and destructiveness. Climate change effects are expected to amplify over 90% of these disasters. In most cases, the poor are the most affected whenever disasters occur as they do not have the resources or any other means to cope and rebuild.