

Faculty rolls out COVID-19 Care Project for learners

The Faculty of Management Sciences through the Department of Marketing and Logistics, donated items to the School of the Hearing Impaired to aid the fight against COVID-19. The Department joined the nation in taking steps to decrease the spread of the virus amongst learners in Namibia, by donating sanitisers, masks, wipes, hand gloves, tissues, water bottles and other items, all valued at N\$5 000.

These items were sourced from sponsorships made by businesses and individuals as part of the Department's community outreach 'COVID-19 Care Package' project.

The School of the Hearing Impaired caters to 156 pupils who experience hearing loss or partial hearing from grades 1 to 9. The school also offers pre-vocational training for hairdressing, woodwork and construction.

A lecturer and the Chairperson of the Departments' community engagement project, Ms Bianca van Niekerk, said the project is specifically aimed to ensure that workers and teachers in disadvantaged areas are able to efficiently and effectively continue with work during this pandemic.

"This gesture is meant to empower the teachers because we understand that empowered teachers can in turn empower learners to become educated and responsible University students in the near future," said Van Niekerk.

A senior staff member at the school, Mr Erickson Reynold, expressed gratitude to

the Department for working side-by side with communities to improve learning outcomes for pupils through its COVID-19 response project.

"The COVID-19 Care Package project is imperative to the persistence and functionality of the school's academic year since its aim corresponds with the motto of our school, which stands for education, empowerment and prosperity for the learners with hearing impairments and communication difficulties," said Reynold.

"We now have the opportunity to safely continue with the academic year and assist the learners in all academic phases to steadily continue with their studies. We thank the Marketing and Logistics Department for their generous support during these times and hope to engage with you again in the future," he remarked.

The project was initiated in April this year and it will run throughout the course of 2020. It was established to identify the needs of teachers and learners, be it in the form of



FLATTENING THE CURVE: Ms Bianca van Niekerk, NUST (left) handing over a package to Mr Erickson Reynold, School of the Hearing Impaired.

facilitating training workshops, or donating food and hygiene products. The project forms part of the Department's community engagement

activities. To make contributions or get more information, send an email to bvanniekerk@nust.na

Digging deeper into soil microbial ecology

Determined to help ordinary citizens with the know-how to make informed decisions about ecology and biodiversity conservation, Ms Elise Nghalipo, a PhD student in Natural Resources Science at NUST, is currently conducting research on Soil Microbial Ecology. Her passion has taken her to the Skeleton Coast National Park, along Namibia's northwestern coast.

"My research topic is about understanding the different types of soil microbes present in an environmental community, their functions and how they carry out these functions to sustain a balanced ecological niche," she says.

Soil microbes are organisms that are found in the soil. They are divided into five groups, namely, bacteria, actinomycetes, fungi, protozoa and nematodes. Nghalipo's study, titled: *Plant Influences on Soil Biogeochemistry, and Taxonomic and Functional Diversity of Soil Microbial Communities in a Hyper-Arid Desert*, focuses on how these soil microbes and biogeochemical processes such as soil organic carbon pools and litter decomposition may respond to climatic variations.

When asked how her research would benefit communities, she responded by saying that it would be useful in the agricultural sector and improve biodiversity conservation efforts in Namibia, as she is using the cutting-edge science of genomics approach.

"Genomics tools can reveal information about trait-conferring genes responsible



Ms Elise Nghalipo, PhD student.

for crop productivity, quality and stress tolerance, which farmers can adopt to improve crop productivity in the face of global population growth and climate change," she said.

The young researcher further emphasised her hopes to bring the value of soil microbial communities to the forefront.

"There is a close linkage between the soil microbiome and the human intestinal microbiome, which plays a major role in enhancing human health and avoiding diseases. We all need to value and understand that soil is more than just dirt beneath our feet. It sustains life," said Nghalipo.

Her research is funded by the European Union, under the SCIONA Project, NUST and the AfSM project.

For more information, visit <http://sciona.nust.na/>

Engineering staff enhance wastewater management skills

Five staff members from the Department of Civil and Environmental Engineering (DCEE), in the Faculty of Engineering, undertook a short training course on wastewater management. The online training was facilitated using DHI Denmark: Mike-WEST simulation modelling software. The wastewater treatment software is widely used for treatment plant operation management and performance assessment. It was availed to NUST, at no cost, courtesy of DHI Denmark, an international software development consultant firm.

Under the DCEE, various programmes are on offer in Water Engineering, and the software will be incorporated into programmes offered at both undergraduate and postgraduate levels. The management of wastewater is essential to ensure wastewater is treated sufficiently, prior to it being disposed off into the environment.

This ensures that the pollution of scarce water resources are limited, and public health is protected.

"The aim of the training is to equip staff with the knowledge of how to use the software for academic and research purposes done in the field of wastewater treatment," said Dr Chris Reynders, a Senior Lecturer in the Department who organised and also took part in the training.

He added that: "The package allows for modelling of integrated urban water systems (IUWS) holistically, incorporating treatment functions, collection systems and river catchments for optimal systems performance management.

With a systems approach, a scope exists; to explore new and innovative water and wastewater treatment related technologies and associated water quality levels. This is of particular interest to arid and semi-arid countries where scarce water resources have to be efficiently managed."

In agreement, Ms Truddy Theron-Beukes, also a lecturer in DCEE, said: "Wastewater treatment entails complicated processes with various bacteria species doing the work and learning to model these processes was an enlightening experience. It improved my skill levels and can be used to make teaching easier."

The four-day online course was presented by Drs Fabio Polesel and Enrico Remigi, Wastewater Process Modellers at DHI Denmark.

"The Windhoek Goreangab Operating Company (WINGOC), sponsored the training course and this gesture is highly appreciated," concluded Dr Reynders, on behalf of the team.

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