



University of Fort Hare  
*Together in Excellence*

# Institutional Advancement

# This Week @FORTH HARE

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**“If you get involved with what you are passionate about, you will never have to ‘work’ a day in your life because you will always be enjoying what you are doing”**

specialised in the Biochemistry of plant stress and have successfully established a research group at UFH, studying the resistance mechanism of wheat to the various Russian Wheat Aphid Biotypes.

I have mainly used a proteomics approach in this study, initially using 2D gels but during the last five years, I have moved to Liquid Chromatography/Mass Spectrometry methods, in particular, SWATH (Sequential Window Acquisition of All Theoretical Mass Spectra) analysis. Within this project, I have established an active collaboration with Prof CJ Botha (Botany, Rhodes University, now retired); Prof Gill Dealtry (NMU); Drs Vicki Tolmay, Astrid Jankielsohn and Tarekegn Terefe (Agricultural Research Council Small Grain Institute) and Dr Stoyan Stoychev (Council for Scientific and Industrial Research Biosciences). Dr Brenda Oppert at the US Department of Agriculture has hosted some of my students as part of our collaborative USDA Seed Grant.

Professors Keith Lindsey and Tony Slabas (Durham University, UK) were instrumental in my initial training in Plant Proteomics and Molecular Biology. Dr Oppert and Prof Lindsey have participated in staff and student exchange programmes and have also acted as external examiners of my MSc and PhD students within this project.

#### **Additional Research Interest**

In addition to my research on plant stress mechanisms, I have an interest in understanding the biochemical mechanisms underlying the use of plants in alternative/ethnomedicine. Many of the active ingredients in plants used by traditional healers are related to plant stress molecules.

Therefore, during the last ten years, I have established a collaborative research project with Prof Anthony Afolayan (Dept of Botany, UFH) and Prof Maryna van der Venter (Dept of Biochemistry and Microbiology, NMU) to understand the pharmacology of these proteins and small molecules in treating Diabetes, Cancer and HIV. Prof van der Venter has assisted mainly with the training of my students in tissue culture techniques to understand the anti-diabetic and cytotoxicity mechanisms of action of plant extracts.

Recently (since 2014), I have expanded this project to explore the potential of marine algae as a source of new/novel compounds to treat diabetes, HIV and cancer. This project was developed in collaboration with the South

African Institute for Aquatic Biodiversity's (SAIAB) Drs Angus Paterson and Garth van Heerden, as part of the National Research Foundation (NRF) African Coelacanth Ecosystem Programme/Phuhlixa programme.

#### **What do you think are your most significant research accomplishments?**

Currently, I hold a C2 NRF rating and have published 63 research articles and one book chapter. I have presented papers/posters at 17 international (8 since 2011) and 26 national (8 since 2011) conferences. My current H index is 15 (Scopus/ISI Web of Science)/22 (Google Scholar). The i10 index is 38 and I have 1413 citations.

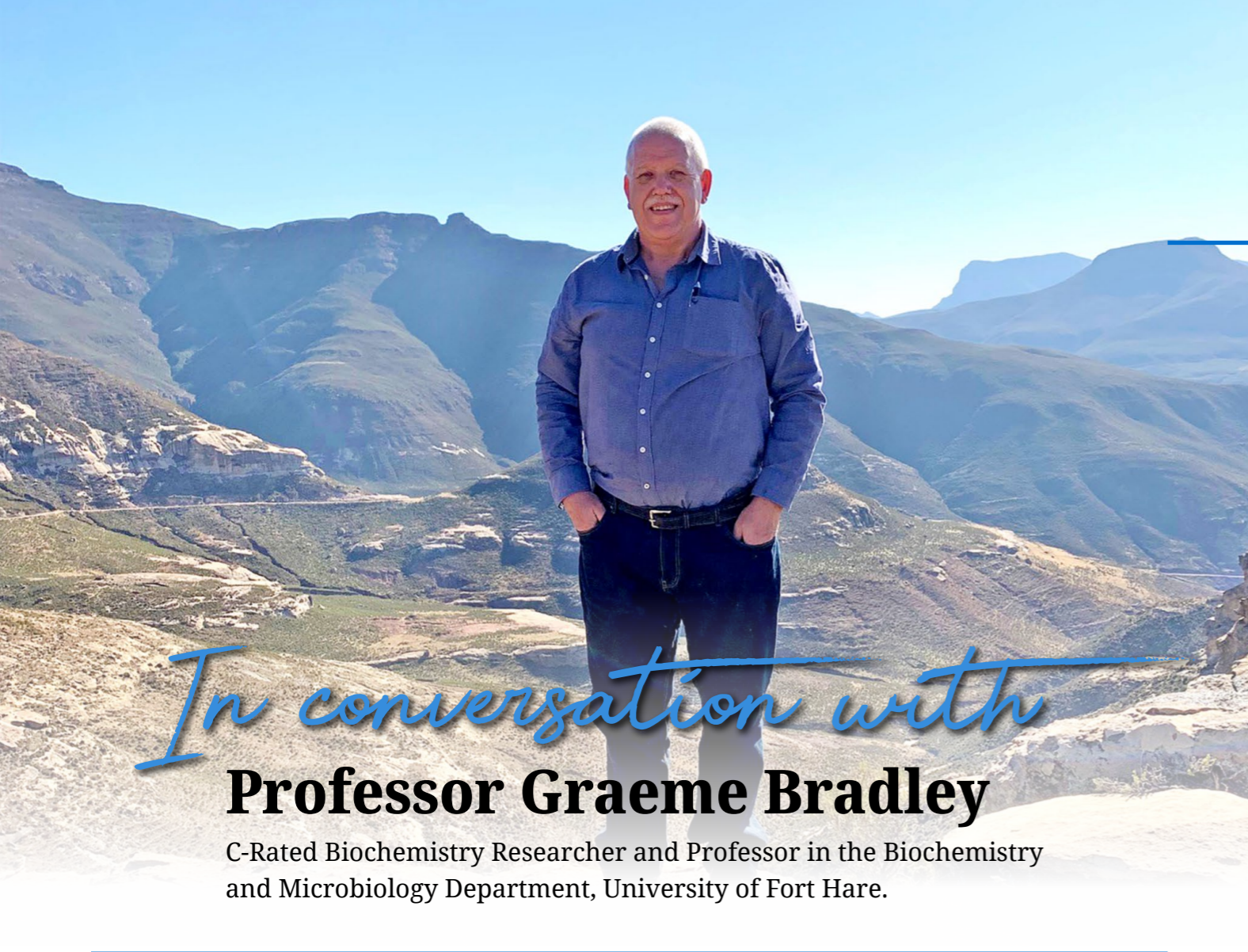
Since 1999, I have also served as external examiner for 56 MSc and 22 PhD students from most South African Universities and some international universities such as the University of Mauritius. I was also an invited member of the review panel for the Department of Biotechnology, University of Western Cape evaluation board - 2016. I also served on the University of KwaZulu-Natal Health Sciences School evaluation board - 2007.

I am a regularly invited reviewer for International and National Journals, including the New Phytologist (IF 6.645); Biochimie (IF 3.022), PLOS One (IF 2.76) and SA journal of Botany (IF 1.659).

#### **Serving on strategic platforms**

- I served on the Advisory Committee for genetically-modified organisms (GMO) Safety (Dept. of Agriculture) as a member of the sub-committee for the assessment of activities involving genetically modified organisms (January 2008 – March 2012).
- I have been an active member of the South African Society of Biochemistry and Molecular Biology since 1989 and served as a Council Member of the Society for 10 years (1994 to 2004), where I served as Secretary and News Editor from 1997 to 2004 and organised and hosted the 25<sup>th</sup> South African Society of Biochemistry and Molecular Biology Congress, in East London during July 2016.
- I have also served on numerous NRF Review Panels, including amongst others, the National Equipment Programme (NEP) and National Nanotechnology Equipment Programme (NNEP); SARChI Research Chairs; Southern Oceans; African Coelacanth Ecosystem Programme and Well-Founded Lab review panels.

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## *In conversation with* **Professor Graeme Bradley**

**C-Rated Biochemistry Researcher and Professor in the Biochemistry and Microbiology Department, University of Fort Hare.**

#### **Who is Prof Graeme Bradley?**

I was born in Kuruman, a little mining town in the middle of the Kalahari Desert. However, I grew up in Port Elizabeth, matriculating at Pearson High School in 1978. After matric I first went to the University of Cape Town (UCT) to study Chemical Engineering, but later decided that I wanted to be involved in Medical Research and Sciences. Therefore, I returned to Port Elizabeth to study for a BSc at the University of Port Elizabeth (now Nelson Mandela University), majoring in Chemistry and Biochemistry.

I finally graduated with a PhD in Biochemistry in 1996. My career path has included industrial, clinical and academic experience. I worked in a veterinary chemical pathology laboratory as well as at a tyre manufacturing plant before deciding to pursue an academic career.

#### **Joining Academia and UFH**

My first academic appointment was in 1999, as a lecturer in the Department of Biochemistry, University of the Western Cape and in 2003, I was appointed as a Senior Lecturer at Rhodes University. In 2007 I was offered a permanent post as Professor of Biochemistry and

Head of Department of Biochemistry and Microbiology at UFH. Since then I have held many administrative positions, including Director of the School of Biological and Environmental Sciences, Deputy Dean of Research and internationalisation, Acting Dean of the Faculty of Science and Agriculture and member of Council.

My passion is mentoring and development of youth, and since my teens, I have been involved in youth work. It is the reason I initially entered into academia, and has been the driving force behind my career. I also have a passion for computers and technology and have always tried to include technology in my teaching and research.

My hobbies include wood work, playing piano/organ, reading, computers games and hiking.

#### **Please share some information about your research field, including past and current projects:**

Throughout my career I have been exposed to a wide range of research areas, giving me a broad and in-depth knowledge of the Biochemistry of prokaryotic and eukaryotic systems. Over the past 20 years I have

## Producing Young Researchers

Over the last 20 years I have graduated several young researchers within the areas of Proteomics, Enzymology, Plant Signalling, Bioinformatics and Marine Sciences, including 17 PhD students (4 as co-supervisor); 24 Masters (3 as co-supervisor) and 46 honours students and am currently hosting 2 post-doctoral fellows and supervising/co-supervising 4 PhD, 4 MSc and 1 Honours students.

## Research Fundraising and collaboration

I have successfully raised funds nationally, including R 4 089 009 (NRF research grants); R5 100 000 (NRF NEP/RISP grant); R575 000 (NRF ACEP/Phuhlisa grant); R780 000 (UFH GMRDC Seed and RNA Research grants), and internationally from Schering AG (Germany) and the USDA Seed Grant (USA). Since 1994 I have established various collaborations internationally including the USDA, USA; Durham University, UK and Moscow State University, Russia. National collaborations include the Botany Department, Rhodes University; Biochemistry Department, NMU; CSIR Biosciences and ARC Small Grains Institute in Bethlehem and SAIAB in Grahamstown.

## What has been the greatest impact of your work?

The most interesting research results have been in the area of Plant Stress and Resistance Mechanism. When I started my research into the wheat resistance mechanism in 2007, the ambient atmospheric CO<sub>2</sub> levels were around 370 ppm and our predicted elevated CO<sub>2</sub> levels for our research projects were 450 ppm.

These climate-change research results revealed that elevated CO<sub>2</sub> levels led to increased Russian Wheat Aphid populations, with a decreased population doubling time. What was of more concern was that the Russian Wheat Aphid (BioType RWA-SA1 then), was able to overcome the resistance mechanism of the resistant wheat cultivars.

My collaborator at Rhodes University, Prof Ted Botha, obtained similar results for Barley. This poses a serious risk to cereal crop farmers in the Free State and the Western Cape. Our research also showed that the emerging BioTypes (RWA-SA2 and SA3) were able to overcome the resistance mechanism of the RWA-SA1 resistant wheat cultivars. We have not been able to establish the mechanism of how this is achieved, and this is still on-going research.

Another interesting result from our research has shown that the wheat resistance mechanism is a multifactorial response and not a single gene-for-gene response that was initially hypothesised. This has serious complications for plant breeders.

## How do you ensure your research is well communicated, digested and acted on?

Early on in my research career I recognised the need for applied research and as a result, I have always established links and collaborations with the relevant industries. My initial post-doctoral research at Stellenbosch Medical Biochemistry was funded by the Glaxo-Wellcome Pharmaceutical Company. Later, my research at the Medical Research Council was funded by Shering AG, a German Pharmaceutical Company. My research results were shared with these companies during annual seminars and research visits.

With my Plant Stress work I have established a collaboration with the Agricultural Research Council's Small Grains Institute and the Commercial Seed Production Company, Sensako, in Bethlehem. We have held annual research meetings where my students and I have presented our research results to the breeders and scientists at these two institutes. The students have benefited immensely from these visits because they presented opportunities to interact directly with scientists and breeders at who are at the fore-front of developing new resistant wheat cultivars. Also, during these visits they received hands-on training.

## What advice would you give to Young Researchers out there?

I have three points of advice for young researchers:

- 1. Find your passion.** It is important that you find your passion early on in your career because this helps you weather the ups and downs of a researcher's life. *There is the old saying that if you get involved with what you are passionate about, you will never have to "work" a day in your life because you will always be enjoying what you are doing.*
- 2. Be flexible.** In today's changing world, one cannot be rigid in one's ideas and approaches to research. When I was an undergraduate student, most of my professors had continued with the research that they did as part of their MSc and PhD, and focused on the one area their whole research life. With the increasing rate of technology developments, and the ability to study complete genomes, proteomes and metabolomes, it is important to stay up-to-date with the current developments and adapt your research to meet new developments.
- 3. Be Patient.** Science, especially Biochemistry, is very unpredictable and often requires dedication, tenacity and patience to obtain reproducible results that are publishable in top international journals. Do not go for the numbers but rather go for impact. Let your research influence the lives of others for the better. But remember, this may take time.

# FORT HARE PIGGERY TRUST, A CUT ABOVE THE REST

The Fort Hare Piggery Trust ranks as the top piggery in South Africa when compared to 52 pig farms in the country with medium to large herds. The Trust has held this national ranking by the Pig Improvement Company (PIC) - the largest pig breeding company in the world and in South Africa - for four consecutive quarters.

Located on the Alice campus, the state-of-the-art piggery was built in 2012. The project is a partnership between UFH, Number Two Piggeries (one of SA's most successful piggery businesses), and Amadllelo Agri (a black empowerment agricultural business). It is managed by a board of trustees, with UFH represented by Prof Nomakhaya Monde, the Dean of Faculty of Science and Agriculture and Mr Phumezo Kwinana, Director of the Forté School of Science and Technology (FOSST) Discovery Centre.

The piggery has a 1 000 sow breeding unit and a fattening unit that produces 400 to 500 baconers for the market every week. It also serves as a training facility for students in the Faculty of Science and Agriculture.

So what makes this pig farm a cut above the rest? Farm manager, Mr Bucks Crouse believes the answer lies in a combination of many aspects, including expertise knowledge, hard work and an enthusiastic staff.

"Number Two Piggeries, who are responsible for managing the piggery are experts in this field and have years of experience. Adding to that advantage, the piggery has well trained and enthusiastic management and staff," he said.

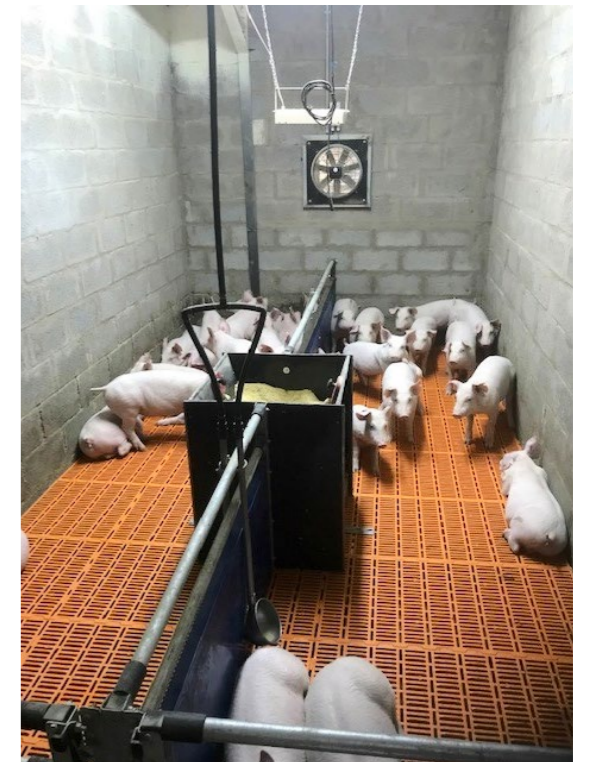
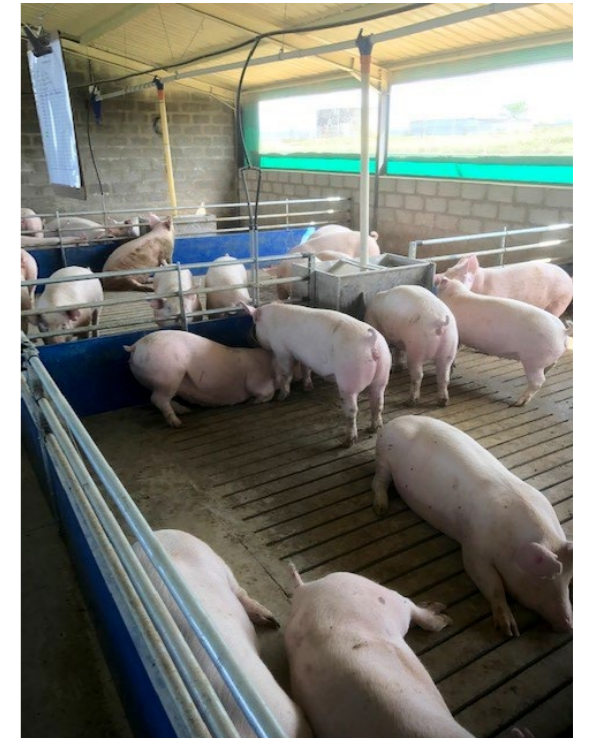
According to him, the team follows stringent bio-security protocol to keep the herd safe and healthy. "Animal welfare is our priority and the basics of animal husbandry is of an exceptional standard," expressed Crouse.

The protocols include the following:

- Maintaining a close herd, meaning no animals are bought from outside into the herd.
- The unit only uses artificial insemination with top genetics, which is a very strict selection programme.
- They only use feed formulated by an international pig nutritionist.

Crouse says being ranked the best in the country four times in a row, is no small feat. "We are very proud of this achievement. It is the result of great effort and hard work from the whole team."

by Aretha Linden





# UFH COVID-19 READINESS Update: Week 20 - 24 July 2020

The information captured in this report has been sourced from and verified by the relevant departments/ units or faculties. All enquiries should be directed accordingly or raised via the SRC. Please do not call, email or text the Editor of this publication.

## STAGGERED RETURN OF STUDENTS (Registrar's Office: Examinations):

The following groups have been issued with permits and are in the process of returning to campus during the course of this week (20 - 25 July):

FACULTY	CATEGORIES
Health Sciences	<ul style="list-style-type: none"> <li>BCurr Levels 1,2,3</li> <li>Speech Therapy Levels 1,2,3</li> </ul>
Science and Agriculture	<ul style="list-style-type: none"> <li>Final Year undergrad</li> </ul>
Law	<ul style="list-style-type: none"> <li>Final Year: Local Govt Law + Admin (SALGA)</li> </ul>
Management and Commerce	<ul style="list-style-type: none"> <li>Honours &amp; Postgrad Diploma - Accounting group</li> </ul>
Education	<ul style="list-style-type: none"> <li>Postgraduate Certificate in Education (PGCE)</li> </ul>
Social Sciences and Humanities	<ul style="list-style-type: none"> <li>Masters -Counselling Psychology</li> </ul>

## CERTIFICATES AND ACADEMIC TRANSCRIPTS (Registrar's Office: Examinations)

- Certificates for the May 2020 graduates are ready. For collection or delivery, kindly refer to the Registrar's Notice dated 20 July 2020: *Graduation Certificates: May 2020 Ceremonies* and follow instructions accordingly.

## STUDENT AFFAIRS: (Office of the Dean of Students)

- Peer Helpers:** assist with screening of students in residencies
- Returning Students:** Students have been placed in residences at both campuses (East London and Alice). Numbers will continue to increase as more students arrive every day of the week.
- Student Counselling Unit:** Has commenced with tele-counselling services. SCU members do call back students who contact the unit.

## COVID-19 INFECTIONS, RECOVERIES and FATALITIES (Covid-19 Task Team)

As at 21 July, UFH has recorded: 30 Infections: (28 Staff, 1 Student)

- One fatality (a lecturer)
- We have 16 active cases and
- 14 recoveries

## PROPERTIES AND SERVICES: (Office of the Director – Properties and Services)

- PPEs for Staff:** Everything is on track. Distribution of masks and sanitisers to returning staff across all campuses took place on 8 July and again on 17 July
- Daily Screening:** Everyday staff go through a stringent health and safety protocol. This is administered by security personnel at every building across all campuses



## MULTI-MODAL REMOTE TEACHING AND LEARNING: University Recovery and Assessment Plan (Office of the Director – Teaching and Learning)

- The plan will be discussed and adopted by the Senate Teaching and Learning Committee which is scheduled to meet on Friday 24 July. The outcomes of that meeting will be communicated in the soonest thereafter or flighted in the next edition.

## ICT TOOLS (Office of the Chief Information Officer)

- Student Laptops:** When the call was made, a total of 6102 applied for a laptop. Approximately 3000 of the gadgets will arrive in the county by Friday next week. Thereafter, they will be couriered, either to a central collection point or to the student's home. The modalities are still being worked out. The remainder will arrive in the country during the month of August.
- Student Data:** As at today, a total of 12288 (out of 15 857) registered students are receiving data from the four network providers (Cell C, Vodacom, Telkom and MTN). Since last week, staff in ICT have been calling students and assisting them to register their details on the university system. That exercise has helped 1139 students. More will be assisted everyday until every student receives data.

## MARKETING AND COMMUNICATION (Institutional Advancement)

- Covid-19 Updates:** Ongoing - via internal notices, **UFH website (dedicated webpage)**, all official social media platforms and internal newsletter (*This Week @FortHare*)
- Posters and Standard Operating Procedures (SOPs):** Posters are have been displayed at strategic spots across all three campuses (EL, Bhisho, Alice).

# GLOBAL ACCOUNTING BODY ENDORSES UFH ACCOUNTING QUALIFICATIONS

**“The Department is passionate about preparing students for a successful career in accounting – hence we have chosen to have our programmes accredited by various professional accounting bodies”**

The Nkuhlu Department of Accounting has done us proud again!

Our Accounting programmes have received accreditation from the Association of Chartered Certified Accountants (ACCA) – a globally recognised accounting body.

The endorsement of the below-mentioned programmes commenced this year (2020), and the ACCA accreditation will hold for a period of five years:

- Bachelor of Commerce Accounting (3 and 4-year programmes)
- Bachelor of Commerce General Accounting

The application process for the ACCA endorsement commenced in August 2019 and was led by Masibulele Phesa, Taxation Lecturer in the Nkuhlu Department of Accounting. After a thorough review by the ACCA team in the UK, the Bachelor of Commerce Accounting programme received its endorsement in January 2020 followed by the Bachelor of Commerce General Accounting last week.

According to the ACCA website, the Association was founded in 1904, with its headquarters based in London and a principal administrative office based in Glasgow. Their network stretches over 100 offices and has centres located in over 50 countries – with more than 320 Approved Learning Partners.

In 2017, the association reached over 700 000 members and students worldwide, with 208 000 fully qualified members and 503,000 students in 178 countries.

Ms Wendy Terblanche, Senior Accounting Lecturer and Head of Department, explained the ACCA qualification and the endorsement implications.

The ACCA qualification is arranged in 3 parts:

- Applied Knowledge level (3 modules)
- Applied Skills (6 modules)
- Strategic Professional (2 compulsory modules and 2 elective modules)

Based on the accreditation of the undergraduate programmes, the implications of this endorsement is that UFH students will receive exemption from the Applied Knowledge modules as well as 5 of the 6 Applied Skills modules. The student would then need to complete the remaining Applied Skills module (Performance Management), as well as a module on Ethics and Professional skills and the Strategic professional modules before qualifying as a Qualified Professional Accountant.

“The Department is passionate about preparing students for a successful career in accounting – hence we have chosen to have our programmes accredited by various professional accounting bodies”, said a visibly proud Terblanche.

The Bachelor of Commerce Accounting qualification, as well as the Advanced Diploma and Postgraduate Diploma in Accounting – both offered by the department – are also accredited by the South African Institute of Chartered Accountants (SAICA). The South African Institute of Professional Accountants (SAIPA) has also accredited the Bachelor of Commerce Accounting and General Accounting qualifications.



## Opening doors for UFH graduates

Terblanche says the recent endorsement will open even more doors for UFH Accounting graduates, nationally and worldwide. These accreditations allow our students to find an appropriate professional body to register with after completing their studies at UFH. Furthermore, the ACCA relationship will also benefit the department and the university as it will create opportunities for academics to engage with the association's education team.

Mr Mareka Chabedi, ACCA Education Manager, said the association will assist UFH graduates to pursue ACCA membership through the Accelerate programmes. This will subsidise various fees payable by aspirant members

of ACCA. He added that ACCA also intends to work with the UFH to recognise their top achieving students.

Mr Chabedi acknowledged the hard work by the Nkuhlu team in developing all the required documents needed to obtain the accreditation “This is a testament to the work that you and your colleagues have put into this. It has been brilliant”, he said.

The next milestone for Department is to align its postgraduate qualifications to Strategic Professional Modules to further assist students in pursuing the ACCA qualification.

*by Aretha Linden*

# MANDELA DAY GIFT TO UFH REACHES 5000 LEARNERS

Three years later, a joint sponsorship of four(4) mobile laboratories by the Department of Defence (DoD) and the Armament Corporation of South Africa (Armscor) has reached more than 500 Maths and Science learners from rural schools in the Eastern Cape province.

The objective of the donation by DoD and Armscor was to enable the University of Fort Hare to create laboratory access for learners studying in rural schools in the Eastern Cape. We can say with pride that the objective has been met, over and over.

The handover ceremony was held on Mandela Day 18 July 2017, and was officiated by Mrs Nosiviwe Mapisa-Nqakula – Minister of Defence and Military Veterans. (<https://www.sanews.gov.za/south-africa/mandela-day-bring-mobile-labs-ec-schools>)

Project Leader and custodian of the assets is Mr Phumezo Kwinana - Director of the Forté School of Science and Technology (FOSST) Discovery Centre (housed within the Faculty of Science and Agriculture, Alice campus). He has hailed the project as one of the university's success stories.

The majority of EC rural schools have inadequate science laboratories and other resources to perform science experiments. According to Kwinana, the labs have enabled FOSST to reach out more and improve the ability to perform science experiments by learners in the province's disadvantaged schools.

"We have been able to reach learners through events like science festivals, science expos, school invitations, demonstrations during National Science Weeks and many other opportunities. Through these mobile labs,

the university has managed to introduce various projects like robotics, learner support projects in maths and science subjects, online instrumentation and many more", he said.

## UFH/Armscor Partnership

In 2016 the University of Fort Hare entered into a partnership with Armscor to implement and enhance learner development. This entailed making available resources to encourage pupils from rural areas to excel experimentations in Science, Technology, Engineering, and Mathematics (STEM) field. The lab project is one of the outcomes of this partnership.

Last year, the partnership resulted in the launch of the Remote and Virtual Education Laboratory (ReVEL) Technology, a first of its kind virtual lab in South Africa. The technology is attached to the university's Physics Department in Alice. Using coding and robotics, it allows users to interact with peers on STEM experimentations. (<https://www.ufh.ac.za/news/News/UFHLaunchesfirstitskindOnlineInstrumentationTechnology>)

Mr Kwinana says he hopes that the collaboration between UFH and Armscor will continue and improve to cover other areas beyond the Eastern Cape.

"This is one model that demonstrates collaboration between industries, funding institutes and educational institutions, to improve the standard of our education system in South Africa. This model can be cascaded to other provinces. We are grateful for the inspiration invoked by the Mandela Day concept!"



**"Through these mobile labs, the university has managed to introduce various projects like robotics, learner support projects in maths and science subjects, online instrumentation and many more"**



## COVID-19 DRIVES DEVELOPMENT OF ONLINE LABORATORIES

Source: University World News, African Edition, 16 July 2020 By Wagdy Sawahel.

[Click here to view original article](#)

African universities have recognised the potential of online laboratories in promoting science education. And while online experiments are especially relevant during COVID-19, there are significant challenges.

“The current situation has prompted African universities to switch their training to distance learning,” Professor Abdelhalim Benachenhou, director of electromagnetism and guided optics in the faculty of exact and computer science at the University of Abdelhamid Ibn Badis Mostaganem in Algeria, told *University World News*.

“However, it is challenging to carry out practical laboratory experiments from a distance. Remote laboratories are complicated to set up and require equipment that is difficult to find in Africa,” he said.

He pointed out that in a remote or conventional face-to-face laboratory, the student interacts with nature in real time. In a virtual laboratory, he or she interacts with a mathematical model which simulates the real world. Benachenhou is also the vice-chair of the **e-Engineering Alliance Special Interest Group**.

He said the objectives of data collection, observation and interpretation can be effectively achieved by virtual laboratories.

Dominik May, assistant professor at the Engineering Education Transformations Institute of the United States-based University of Georgia, told *University World News* that online laboratories can offer experiences under socially distanced learning settings.

“Educational research shows that online experiences can be as beneficial to students as those in hands-on laboratories,” added May, who is the vice president of the **International Association of Online Engineering**.

He pointed out that online labs are still at a developmental stage in terms of technical maturity and educational research, not only in Africa but around the globe. “However, COVID-19 has precipitated a pressing demand for the development of online laboratories,” he said.

Pablo Orduña, co-founder and CEO at **LabsLand**, told *University World News*: “Virtual laboratories allow students to gain practical knowledge in science, technology, engineering and mathematics (STEM) education without taking unnecessary risks. LabsLand has provided free access to thousands of students in the past four months and ... will continue to support universities and schools.”

### Virtual laboratories in Africa lag behind

“Although there is zeal and motivation, not many universities in Africa have rolled out virtual laboratories,” **John Agumba**, lecturer at Jaramogi Oginga Odinga University of Science and Technology in Kenya, told *University World News*.

Agumba established test e-labs at Pwani University in Kenya and is currently preparing an online science laboratory workstation for real-time experiments by engineering and science students at his own university. He pointed out that serving students from a central facility would circumvent time and space as well as avoid excessive expense.

Phumezo Kwinana, director of the **Forté School of Science and Technology** (FOSST) Discovery Centre and founder of the Remote and Virtual Education Laboratory (ReVEL) at the University of Fort Hare (UFH), South Africa, told *University World News*: “Virtual laboratories are being developed in African universities. ... Remote laboratories were introduced to UFH’s physics department in October 2019.”

ReVEL enables students and researchers to interact with peers from over 20 universities around the

world on experiments in the STEM field. Learners from local rural schools are able to perform all their syllabus-based experiments online, according to the **ReVEL website**.

Kwinana explained that virtual and remote technology allows for less setup, easier to record data and better results analysis, as well as the feel of a real face-to-face interaction.

He went on to explain that UFH collaborates with **India-based Amrita University** to run their virtual laboratory. For the running of their remote laboratory, they collaborate with LabsLand.

The UFH received funding from the Albert Wessels Trust to convert South African high schools’ physical science experiments into digital ones. They are working with LabsLand and Rexlab on the digital conversion of UFH’s first-year science syllabus.

Kwinana said a virtual laboratory at the University of Stellenbosch is in the initial stages of development but that according to LabsLand and Amrita University, few other African institutions are running virtual laboratories.

### Real-time remote laboratories in Africa

The development of virtual laboratories might be lagging in Africa but there are several initiatives developing real-time remote laboratories, according to Pablo Orduña of LabsLand.

“These include the European Commission Horizon 2020-sponsored **GO-GA project** which delivers a learning tool called Go-Lab to schools. Go-Lab facilitates the use of online laboratories and enquiry-based learning applications for science education,” said Orduña.

He added that African universities in Morocco, Tunisia and Algeria are implementing remote laboratories in collaboration with other universities in Jordan, France, Spain and Belgium as well as with LabsLand. This is driven by the **e-LIVES project**.

He said the Massachusetts Institute of Technology **iLabs project** has had a strong presence in some African countries, for example, Uganda and Nigeria’s Obafemi Awolowo University.

Benachenhou highlighted the need for African universities to invest in virtual laboratories in this time of COVID-19. He said an existing IT

infrastructure is all that is required for their development. However, he sees a lack of skills as a barrier and proposes that IT developers be called on for assistance. He suggests national or international networking and pooling of resources to make the production of virtual laboratories profitable.

“African universities are technically ready to use virtual, remote and hybrid laboratories for teaching science, engineering, technology, mathematics and art,” Hamadou Saliah-Hassane, professor in smart networked educational devices for online laboratories at TÉLUQ University, Canada, told *University World News*. Saliah-Hassane is originally from Niger.

He delivered a **keynote lecture** at the 2018 International Conference on Computer Supported Education entitled “**Standardization of Online Laboratories for Education – Why and How?**”, which called for including African experts abroad in the decision-making process.

### Digital laboratories – networking is key

Agumba from Kenya said: “There should be proper funding, skills training for staff, improvement of electrical provision and internet stability as well as inculcation of positive attitudes in students and lecturers.”

May, from the University of Georgia, emphasised that collaboration among institutions could address some of the financial challenges. He pointed out that individual institutions could benefit from sharing online laboratories.

Kwinana took this further by suggesting that institutions could share their specialist expertise for the development of experiments to avoid duplication. He said: “African universities can promote the use of virtual laboratories in science education by working together to ... have a network of users. I think the key is to build on what works, drawing on companies like LabsLand, Rexlab, etc, and then work on developments and innovations.”

“The UFH is our reference in this approach, as it is actively sharing results, knowledge and opportunities with teams in the US, Brazil, Costa Rica and Spain,” Orduña said.

# UFH RECEIVES MORE PPEs



The distribution of Personal Protective Equipment (PPEs) began on 8 July when the first 33% cohort of staff returned to their workstations. Each returning staff member was provided with cloth masks and a bottle of hand sanitizer.

A larger consignment of PPEs was delivered last week (13 July) when the university welcomed the first cohort of students. The stock includes:

- Hand Sanitizers
- Masks and face shields
- Hand gloves
- Infrared thermometers
- Re-usable gowns
- Medical foot covers

With the rapid rise of the Covid-19 pandemic in the world in general and the Eastern Cape in particular, the university is not immune to the spread of infections. So far, the university has reported 28 positive cases, with an encouraging 50% recovery rate.

In addition to PPEs, stringent protocols such as daily screening, physical distancing and hand hygiene are being observed in order to prevent or minimize the spread of Covid-19 on campus.

by Mawande Mrashula

# COVID-19 Human Resources Communication



University of Fort Hare  
Together in Excellence

## Welcome Back to A New Normal



Workplace Readiness		Return-to-Work		Business Continuity	
<p><b>1</b> Office Deep Cleaning and installation of wall mounted and free standing sanitisers</p>	<p><b>2</b> Management, Labour and SRC Walk-About to establish readiness to receive employees and students</p>	<p><b>3</b> Return-to-Work letters issued to 1<sup>st</sup> Cohort and Temporary Office access for employees working from home to access office items</p>	<p><b>4</b> Complete daily online screening, Produce RTW Letter at Security gate/door wearing own mask, complete temperature screening, sign register and sanitise</p>	<p><b>5</b> Access your office building, undergo screening, sign register and sanitise. Keep to social distancing at all times, wearing a cloth mask and sanitise surfaces and hands</p>	<p><b>6</b> Collect PPE from your Department's delegate, familiarize yourself with the contents of Covid-19 intranet site, esp. Conditions of Employment and Covid-19 measures (SOP's &amp; Protocols) put in place by the University</p>
<p><b>7</b> Assess how Covid-19 has changed the way in which you execute your duties, agree on new strategies to ensure job success</p>	<p><b>8</b> Re-contract with your line manager by completing an addendum to the IPA and agree on support needed to accomplish set deliverables</p>	<p><b>9</b> Ensure that your Weekly and Monthly reports are submitted to your line manager on time</p>	<p><b>COVID-19 ACTION PLAN</b> STANDARD OPERATING PROCEDURES &amp; RISK ASSESSMENT</p>		

# Degeneration of Financial Controls In Municipalities Lamentable

By Tinashe Mutema, UFH Economics Graduate and current final year Accounting student. He writes in his personal capacity

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It is not that the till is empty but that there are wrong hands at the till. It is being guarded by the wrong people, not far from wolves entrusted with herding sheep. Auditor General Kimi Makwetu's report on municipal audit outcomes summed up the disgracefully bad financial management record of municipalities as a personnel issue.

For years analysts have bemoaned the lack of competent and qualified professionals in key municipality positions. In the few instances where municipalities recruit competent and qualified professionals, they are frustrated. They meet strong resistance in ensuring adherence and compliance with key governance laws - they face intimidation when they stand for principle. Many eventually resign for safety reasons and to safeguard their reputations.

The competence deficient in key positions calls for a deep introspection of "cadre deployment" as a recruitment policy in municipalities. It is unfortunate that key municipal positions are awarded as a token of appreciation for political loyalty. Cadre deployment allows for the appointment of personnel with little to no financial background into key positions in defiance against binding prescribed minimum requirements for these positions.

In the 2018/2019 year a total of R1.26 billion was spent on consultancy fees for financial reporting notwithstanding that there are people employed to prepare financial statements for reporting in municipalities. What is more dishonourable about this expenditure is that R522

million of it was spent by municipalities with outstanding audits. There is a disappointing lack of skills transfer between the consultants and municipalities. In some cases expenditure on consultancy is increasing where it is supposed to gradually decrease as skills are being transferred by consultancy firms to employed personnel.

Municipalities are finding it difficult to collect outstanding debt from rate payers. This is not only due to poor debt management but on close observation, there seems to be a rates payment revolt by ratepayers caused by their dissatisfaction with chronic corruption in municipalities. Poor service delivery by municipalities is also serving as a disincentive for ratepayers to honour their end of the bargain.

Debt collection in municipalities has at times been compromised by political populism where political powers have moved in to stop municipalities from implementing drastic debt collection measures for example termination of services or use of debt collectors in order to gain political popularity.

Failure to adequately collect revenue has increased municipalities' dependency on treasury grants - further straining the fiscus which is stretched to the brink. Lack of proper revenue procedures has severely strained the coffers of municipalities as evidenced by municipalities sharing an average creditor-payment period of 180 days. Such an awful creditor-payment period does not only reflect a gloomy financial situation but severely affects SMMES, who need to be paid as urgent as possible to maintain favourable liquidity positions.

Municipalities are also seeing an overlap of revenue over expenditure. 34% of municipalities disclosed deficits. Makwetu observed that many of municipalities are in a "cul-de-sac" situation where revenue allocations for future expenditure is used to pay for past expenditure. This complicates long term planning for municipalities.

There seems to be a strong correlation between politically unstable municipalities and municipalities with unfavourable audit outcomes. Most of the instability emerges when subjectivity triumphs objectivity in municipal expenditure. Infighting drains energy and time from management of resources and delivery of mandate to attending political fights.

In an exceptional case in Mpumalanga there was underspending because poor budget management as

the cause despite service delivery protests during the year under review.

Makwetu touched on the catastrophic effect of the liquidation of VBS Bank on affected municipalities which lost R1.2 billion. Undue political interference was sighted by Adv Terry Motau as one of the reasons that led to municipalities depositing funds with VBS. The VBS saga exhibited intimidation of professionals employed in municipalities when they stand for principle and law.

Makwetu lamented a degeneration of internal controls in municipalities, in some instances there are no internal controls at all. In cases where there are internal controls, however weak, they are detective controls. Detective controls do little in limiting fraud and error, preventive controls discourage financial misconduct effectively.

For example Makwetu's report found only 2% of municipalities to be complying with laws and regulations governing supply chain management. Supply chain is where much of the looting is orchestrated through insider trading and compromised procurement processes.

There is generally an absence of consequence management in municipalities. Delinquents are allowed to carry on without reproach. Perpetrators of fraud seem not to face any prosecution.

Makwetu revealed that many municipalities around the country have unimpressive infrastructure management plans resulting in huge water losses. A total of 36% of municipalities responsible for water services and related infrastructure reported water losses of up to 30% due to dilapidating water supply infrastructure. This cannot be tolerated considering the scarcity of water.

The picture of financial management in municipalities is indeed despondent. Irregular expenditure increased by R7 billion from last year.

The Auditor General has since been empowered by more legislative power which seems to show some progress. There is still a need to involve the Auditor General in municipal budgeting and expenditure. As it remains the Auditor general is playing detective which seems not to deter anyone from financial misconduct, it needs to play a preventive role. The work of the Auditor General needs to be linked with the National Prosecuting Authority to ensure processing of culprits.



## MANDELA DAY COMMUNITY OUTREACH INITIATIVE

**“When they leave their homes, they will do so confidently knowing that they are protected from getting the virus. The community appreciates the gesture”**

On 17 July members of the Student Representative Council (SRC), staff from the Student Affairs and Institutional Advancement department donated 100 masks and 25 litres of sanitizers to elderly people at Dyamala location, just outside the Alice campus.

The door-to-door service was made in line with the ethos of the International Mandela Day: 67 Minutes of Making

the World a Better Place, and of course to honour the memory of the late Nelson Mandela, himself a global icon and one of Fort Hare's greatest alumni.

“As the SRC together with Student Affairs, we decided on donating masks, gloves, and sanitizers to the elderly as they are considered vulnerable to Covid-19. Our wish is to do what we can to protect them from this virus.” said SRC Community Outreach Officer

Ward Councillor Ms Ntombi Klaas, expressed gratitude for the contribution.

“These masks and sanitizers will help in preventing the spread of the virus. When they leave their homes, they will do so confidently knowing that they are protected from getting the virus. The community appreciates the gesture”, she said.

*by Asaduma Baloyi*



## The Role of The South African Association of Public Administration and Management (Saapam) in Developing The Discipline of Public Administration

**By Dr Sandiso Mahlala:** Lecturer, Department of Public Administration, UFH and Eastern Cape Chairperson of the South African Association of Public Administration and Management (SAAPAM) and a member of the National Board.

The existence and evolution of an academic discipline is closely linked to its contribution and relation to the broader discourse and praxis to its practice. Likewise, there is a pertinent role that professional bodies and associations play in ensuring that this discourse is realised and strong networks/ partnerships exist between knowledge producers (Higher Education Institutions) and the practitioners in their respective fields.

Maserumule (2015) argues that, “since 2011, SAAPAM has managed to ask the right questions and courageously took a stand against modernism and the nihilism of the gerontocracy of the discipline”. These interrogations form the basis of the contribution to the body of knowledge, as well as the development of the discipline and practice of Public administration.

SAAPAM is a body of public service administration professionals, including academics, corporate institutions and students. This association was formed just before the dawn of democracy in the early 90s.

SAAPAM's vision is to contribute towards the development of good governance, effective and efficient service delivery. One of the major objectives of the association is to promote excellence, in the theory and practice of Public Administration and Management, through the promotion of basic values and principles underlying economic, efficient and effective democratic Public Administration and management as purported in subsection 195(1) of the constitution of South Africa, 1996.

Our vision is supported by our mission, namely: to provide Public Service Excellence and Scholarship that encourages and promotes an advancement of professionalism, scholarship and practice of public administration and management.

The association caters for different membership categories such as: student, corporate, institutional, international and honorary membership.

### Benefits of Membership to SAAPAM include:

- Subscription to the accredited Journal of Public Administration, published quarterly.
- Access to an annual conference during which critical issues impacting on the discipline and practice of Public Management and Administration are discussed, analyzed and promoted.
- Access to the formal communication network of SAAPAM members and ample opportunity for networking and building bonds between practitioners, academics, researchers and other professionals in the discipline of Public Administration and Management.
- Joining a professional association such as SAAPAM is a win-win situation for students, because while they are networking with professionals, they are being praised for taking the initiative to learn more about their field of interest.

There is always a strong need to keep the link between such associations and the broader community alive and relevant to ensure that there is continuity in the development of the discipline of Public Administration. Recently SAAPAM has hosted a series of online lectures during this lockdown featuring a number of profound intellectuals like Geraldine Joslyn Fraser-Moleketi former Minister for the Public Service and Administration (<https://web.facebook.com/Saapam/videos/2795948663836201/>) and Pali Lehohla former Statistician-General (<https://web.facebook.com/Saapam/videos/293365001833463/>)

SAAPAM at the University of Fort Hare has also established a Student Chapter to enhance the academic dialogue within the discipline at student level, as well as intervarsity with the Eastern Cape Higher Education Institutions that offer the discipline qualification.



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