



UNIVERSITEIT VAN PRETORIA
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Mamelodi dipolelelo

Fostering excellence in pathways to STEM education

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Prof Ogude appointed Vice-President of the PAU Council

Prof Nthabiseng Ogude, Dean of the University of Pretoria (UP)'s Mamelodi Campus, was appointed as Vice-President of the Pan African University (PAU) Council during the assembly of the African Union Council (AUC) on 2 July 2018 in Mauritania, West Africa. The PAU was established by the AUC as an intra-African human capital development initiative to focus on mainstreaming science, technology and innovation in the African higher education sphere to promote the sustained socio-economic development of Africa.

In congratulating her on the appointment, representatives of the AUC stated that they encourage qualified women to stand at the forefront of its strategic agenda, and that Prof Ogude's appointment reflects the process of gender mainstreaming within the AUC.

Prof Ogude has served on the Councils of the University of Botswana and the National University of Lesotho. She has also acquired a wealth of experience in higher education after more than 15 years of serving in university management and leadership, including in positions of research management. She will draw on this experience to fulfill her new role, which entails driving the strategies of the PAU. Some of these strategies relate to strengthening the African higher education and research agenda by enhancing education quality, South-South collaboration and knowledge generation to solve African

problems, as well as by contributing towards the production of the critical mass of high-quality researchers through postgraduate programmes and towards empowerment through command of the African Union languages.

The PAU has priority research activities across Africa in areas including governance, regional integration, minimising language barriers through capacity building in interpretation and translation, water, energy, climate change, science, technology and innovation, health, agriculture, earth sciences and space science. It has already established the PAU of Governance, Humanities and Social Sciences in Cameroon, the PAU of Water and Energy Sciences at the University of Tlemcen in Algeria, the PAU of Life and Earth Sciences at the University of Ibadan in Nigeria, and the PAU of Science Technology and Innovation at Jomo Kenyatta University of Agriculture in Kenya. In southern Africa,

the PAU of Space Sciences is in the process of being established at the Cape Peninsula University of Technology in collaboration with Stellenbosch University, UP, Durban University of Technology, the University of Fort Hare, the University of Cape Town, North-West University and the University of KwaZulu-Natal.

Prof Ogude believes that, since South Africa and the rest of the continent are interconnected, Pan African ideals are only achievable through knowledge production and by pulling together shared scarce resources. She also believes that it is education, rather than political rhetoric, that will bring Africa's economic emancipation. Her appointment creates a pathway to share knowledge among colleagues from across Africa on best practice in research. Prof Ogude hopes that her appointment will encourage South Africans to be proactive in PAU activities.

From the Dean's desk

Every school day between 07:00 and 08:00, large numbers of learners make their way past the edge of Mamelodi Campus from the informal settlement, Phomolong, to their various primary and high schools. These learners walk purposefully, seemingly charting a pathway into their different futures. The cover image of this issue of *Dipolelo* depicts this beautiful sight. For those of us who work on the Campus, this unique phenomenon is a constant reminder of why the University has a campus in Mamelodi. The sight energises us to live out UP's by-line, "Make Today Matter," in our academic activities. These learners are the hope for their families and their communities, as well as for South African and the African continent, and they are at the core of the mandate of the Campus, which is to broaden educational pathways into tertiary studies, primarily into science, technology, engineering and mathematics (STEM)-related fields. The University is proud that it can contribute to their journey by complementing formal teaching and learning in their respective schools as we move them and their communities closer to a "place of peace and calm," which is what Phomolong means in Sesotho. I am honoured to serve as Dean of the Campus, which serves the residents of Mamelodi.

I was also recently appointed as Vice-President of the PAU, a very humbling trajectory in my career in higher education (read the full story on page 1). I am particularly grateful because I can now operate at both ends of the educational pathway: From the one end, where I get

to nurture potential scientists from the cradle of basic education through the activities of Mamelodi Campus, to the other end, where learners from across the continent have the opportunity to enroll in postgraduate programmes offered by the PAU.

As always, this issue of *Dipolelo* showcases the academic activities of the Campus in relation to its pre-university interventions, its Foundation Programmes – the most successful academic pathway some of the learners from this community have gone through – and its research and international collaborations centred primarily around the improvement of learner outcomes. It also features community-engagement activities aimed at strengthening the impact of the institution in the Mamelodi community.

The current highlight of the pre-university interventions on Mamelodi Campus is the Australian Indigenous Mentorship Experience (AIME), in collaboration with Tsako Thabo High School, which was launched in May of this year.

From our Foundation Programmes, we are happy to feature alumni who continue to excel in their chosen careers. In a huge vote of confidence, a record number of 300 parents and prospective students visited Mamelodi Campus on #ChooseUP Day on 4 August 2018. A full story of the success of the #ChooseUP campaign will be featured in the next issue of *Dipolelo*.



Prof Nthabiseng Audrey Ogude

Our international collaboration highlight is undoubtedly the formal launch of our research programme in collaboration with Rutgers University-Newark, the Mamelodi Collaborative, with the workshop held on 28 and 29 May (read the full story below). The USAID Research and Innovation Fellows have spent two months on Mamelodi Campus conducting community-based research and their contribution to our research agenda will be featured in the next issue of *Dipolelo*.

Another major boost to our research activities is the development of a comprehensive STEM education capacity development programme for emerging and aspiring researchers in UP faculties associated with Mamelodi Campus by Prof Marissa Rollnick. The programme is based on hard data and was approved at the recent meeting of the Inter-faculty Academic Committee for Mamelodi Campus. A programme for implementation is at an advanced stage.

As UP's anchor in Mamelodi, the Campus provides a unique space for the celebration of this community's heroes. In the period under review, this included a celebration of the lives of struggle hero Solomon Kalushi Mahlangu and veteran musician Dr Phillip Tabane.

Implementing UP's anchor strategy through the Mamelodi Collaborative

The Mamelodi Collaborative is a partnership between UP and Rutgers University-Newark in which the two institutions share experiences, build capacities and leverage their research outputs towards anchor strategies. These strategies aim to develop the areas surrounding the institutions' campuses. Mamelodi Campus is ideally positioned to implement UP's anchor strategy in the Mamelodi area. The initiative is led by Prof Nthabiseng Ogude, Dean of Mamelodi Campus, and Dr Kyle Farmbry, Dean of the Graduate School at Rutgers University-Newark.

On 28 and 29 May 2018, Prof Ogude and Dr Farmbry hosted a two-day Mamelodi Collaborative workshop on Mamelodi Campus. A total of 36 representatives from both UP and Rutgers University-Newark attended the workshop. There emerged from the workshop concepts that will serve as next steps to the evolving relationship between the two institutions on collaborative initiatives related to anchor institution work in their respective communities of Mamelodi and Newark. The following five niche research areas emerged from the workshop:

- Area A: Broadening educational pathways, with research leaders Deans Ogude and Eatman, as well as Jennifer Bucalo.

- Area B: Economics and entrepreneurship, with research leaders Prof Alex Antonites and Dean Farmbry.
- Area C: Arts and humanities, with research leaders Dr Rory du Plessis and Director Wayne Winborne.
- Area D: Science and the urban environment, with research leaders Dean Ogude, Dr Ashaki Rouff, Dr Jessica Ware and Dr Rory du Plessis.
- Area E: Strong, healthy and safe neighborhoods, with research leaders Dr Carin Combrinck, Dr Jamie Lew and Dr Mara Sidney.

The Collaborative will focus on developing research proposals and programmes for the identified research areas as they relate to

Mamelodi and Newark. The goal is to deepen the understanding of how these research areas manifest in the two geographic areas under consideration in order to inform the partner institutions' anchor strategies.

Prof Cheryl de la Rey, Vice-Chancellor and Principal of UP, hosted a dinner to welcome the Rutgers University-Newark delegates to UP and encourage the continuing growth and development of the Mamelodi Collaborative. Five USAID Research and Innovation Fellows studying towards master's and PhD degrees at Rutgers University also remained at UP to conduct their research in the Mamelodi community.

STAFF DEVELOPMENT

Workshop for Mamelodi Campus tutors

On 13 April 2018, 31 Mamelodi Campus tutors, one technical assistant, two lecturers and seven module coordinators attended a workshop presented by a team from UP's Department for Education Innovation led by Dr Sanet Haupt. Prof Ogude initiated the workshop.

The purpose of the workshop was to improve tutoring on Mamelodi Campus and better understand student support and tutoring practices at Tuks Naledi. The workshop was also intended to ensure the seamless alignment between all the support services

available to students, including Faculty Students Advisors (FSAs), tutors and module coordinators within the framework of the policy on teaching support staff.

Prior to the workshop, Mamelodi Campus module coordinators were surveyed to determine the duties and expectations of tutors. It was revealed that these varied from one unit to another. To ensure that all matters relating to the duties and expectations of tutors were covered, the workshop included a presentation by the FSAs of Mamelodi Campus (Ms Ida Meyer and Mr Vincent Mabuza) regarding when to refer a student to Student Support, and a

By Sanet Haupt and Jeanine Mwambakana

presentation on understanding tutoring by Dr Senoelo Nkhase.

During the small-group discussions, the tutors talked about what worked well for them and what needed to be improved in order for them to function effectively. Module coordinators were given an opportunity to share their tutoring models and to stress the essence of the tutorial activities in their units. They also reflected on what needs are addressed by their models, what worked well, what challenges they faced in their models, and what training needs exist for their tutors. Most of the tutors experienced the workshop as highly beneficial.

Constructivism in learning mathematics and science: Workshop presented by Prof Marissa Rollnick

By Nosipho Mthethwa

On 28 March 2018, Prof Rollnick, a Research Fellow at Mamelodi Campus, presented a workshop on constructivism to the academic staff of the Campus upon request by the Dean and in association with Scriber Space from UP's Faculty of Natural and Agricultural Sciences. The aim of the workshop was to introduce the theory of constructivism and its application to the learning of mathematics and science.

The presentation was interactive, with short activities included to assist with the comprehension of the concepts. Two articles were distributed to the participants before the workshop to assist them in understanding the deeper background to the three perspectives on constructivism.

Prof Rollnick introduced the importance of theory and asked participants to provide a definition of theory according to their own understanding. She then elaborated on the use of theory in everyday life, and what a learning theory should provide in mathematics and science education. She compared theory in science and theory in

science education, where theory in science education is subject to modification and critique while theory in science tends to be more static.

Before engaging in the theory of constructivism, Prof Rollnick asked the participants to discuss what the word "constructivism" meant to them. Participants gave insightful feedback after their discussions. Prof Rollnick then delved into the history of constructivism, the misuse of and misconceptions about constructivism, as well as the use of prior beliefs and knowledge in constructing knowledge and understanding.

A brief definition of cognition was addressed, after which Prof Rollnick asked participants to carry out an activity where she distributed a single battery, a wire and a light bulb to three groups and asked them to use the given equipment to make the light bulb light up. This led to an extract from the "minds of our own video" which, along with Prof Rollnick's explanations, addressed the importance of acknowledging and using prior knowledge and conceptual change in constructing new



knowledge in mathematics and science education. Prof Rollnick briefly engaged in the three kinds of constructivism, namely radical constructivism, social constructivism and personal constructivism, where she correlated the types of constructivism with mathematics and science education on mechanisms of teaching and learning.

An electronic survey sent to participants following the workshop revealed that most participants found the talk applicable to their fields of study, and that they appreciated Prof Rollnick's ability to address the diverse theoretical levels and needs of the audience. Participants were keen on participating in follow-up presentations where each constructivist perspective would be addressed in separate sessions. There was a general indication of the need to address the practical applications of constructivism in different fields of education.



Designing plans to realise the vision of Mamelodi Campus

By Ida Meyer

On 14 and 15 April 2018, a research team from Mamelodi Campus consisting of Prof Ogude (Dean of Mamelodi Campus), Mrs Ida Meyer (Senior Faculty Student Advisor), Miss Nosipho Mthethwa (Research Assistant in the Dean's Office), and nine successful Mamelodi Campus alumni, participated in a weekend workshop for their research into using the positive experiences of alumni to strategise improvements to the Extended Curriculum Programmes (ECPs).

The research team recently had their first article accepted for publication. The article considered the question of whether successful students' real-life experiences could help to improve ECPs presented at Mamelodi Campus. The paper opens a wider debate on how students' advocacy for ECPs can be a strong rallying point and an area of untapped potential in the South African higher education system.

During the workshop, the participants worked in groups to formulate mini presentations that were up for scrutiny by the other groups. The research team compiled the main points from the presentations to formulate its argument.

The discussions led the participants to identify the values, skills and attitudes they thought staff should have or should develop in order to be successful in teaching ECPs. The systematic process included activities where the groups identified their ideal for the Campus under the best circumstances. This was compiled into a vision statement, and a strategy was formulated to realise the vision. During the session, the alumni committed to projects that they have designed to improve ECPs.

The following issues ranked high in importance during the workshop:

- Past students from the ECPs wanted to see it marketed as a first-choice option

to prospective students because of its success.

- Awareness about the advantages of the ECPs needs to be improved through the use of positive alumni stories backed by data.
- Current students in the ECPs should have access to more Faculty Student Advisors, since student advising is successful in the development of student attitudes, skills and values, and brings out students' strengths. It also brings more certainty with regard to students' future careers.
- Mamelodi Campus alumni wanted to be more involved in supporting and guiding present students in the ECPs financially or for physical needs (e.g. textbooks, food, clothes, calculators, etc.), and also on information about their direction of study.

Campus developments



Mamelodi Campus is continuously investing in its infrastructure. Here are some highlights:

- The building to house the 11 kV intake substation and standby electricity generator was completed in June 2018. The standby generator is being built in Italy and should be commissioned by October 2018.
- Mamelodi Campus Library's Disability Unit was commissioned and completed in June 2018.
- Mamelodi Campus lecture halls, the Administration Building and the academic staff building have had WiFi since the middle of July 2018. The LST classrooms are next in line to have WiFi connectivity.



PROMOTING SOCIAL INCLUSION ON MAMELODI CAMPUS

Mamelodi Campus is home to first-year students enrolled for the BSc and BCom Extended Curriculum Programmes. To ensure the success of these students, as well as to develop this alternative pathway to STEM-related careers, Mamelodi Campus is engaging in a range of activities to promote social inclusion.

Promoting educational pathways to STEM-related study fields for local learners

The strategic focus of Mamelodi Campus is to improve educational pathways to STEM-related fields of study at UP, with specific reference to increasing the number of learners from the Mamelodi community and surrounding schools who study at UP. To inform its targeted recruitment strategies, the Campus administered surveys to local learners in Grade 8 to Grade 12 who attend the Mamelodi Campus summer school in January. Surveys were also administered to local learners involved in the Mamelodi Mathematics and Science Programme (MMSP), the Committed Artists for Cultural Advancement (CAFCA) Jazz Academy, the Mae Jemison US Science Reading Room, and the newly launched Mamelodi Campus after-school homework programme. The Campus has also launched its partnership with the Australian Indigenous Mentorship Experience (AIME), which connects university students to high school learners from disadvantaged communities to help them achieve their aspirations to gain access to higher education institutions.

Ensuring fair student representation

Mamelodi Campus students are represented through the class representative system, as well as the faculty houses: House Commercii of the Faculty of Economic and Management

Sciences and NatHouse of the Faculty of Natural and Agricultural Sciences. The Student Representative Council (SRC) also has a portfolio holder for external campuses who visits the Campus to meet with students. On 14 May 2018, Prof Norman Duncan, Vice-Principal for Teaching and Learning, met with class representatives from across the University, where students engaged University leadership on a range of issues and concerns.

Advancing student support

To improve its capacity for student support, Mamelodi Campus commenced construction of a disability centre in its library at the end of June to assist students with disabilities to access institutional resources. The centre includes computer facilities with software for visually challenged students, as well as access for wheelchair-bound students.

The Department of Student Affairs' Student Support Division on Mamelodi Campus also regularly runs health awareness campaigns for students on the Campus. The campaigns deal with a range of issues first-year students face as they transition from high school to university. On 28 February 2018, the Division hosted a health and wellness expo in partnership with the Center for the Study of Aids, Gender and Sexualities, Amato, Student Support and Future Life, the South African Depression and Anxiety Group, Life Line, Tears, the Department of Social Development, and Sakuma Sakhe.

Making a home away from home

This year, Prof Ogude was appointed the University Guardian for Tuks Naledi, the UP residence accommodating students studying on Mamelodi Campus, as part of the University's efforts to strengthen the relationship between residence students, deans and the University Executive.

Prof Ogude visited Tuks Naledi to meet with the students, their House Committee and their Head of Residence to establish a process for continued interaction between the residence leadership and the Dean. With Prof Ogude as Guardian, issues facing the residence can now receive institutional attention and support.

Encouraging alumni engagement

On 17 March 2018, Mamelodi Campus launched its Alumni Club, which is aimed at building stronger ties and affinity with UP students who commenced their academic careers on Mamelodi Campus. The Alumni Club seeks to celebrate and showcase the academic achievements of Mamelodi Campus alumni to encourage prospective UP students to select the Foundation Programmes as a first choice. The alumni themselves suggested the idea for the Club based on their experiences of the support they enjoyed during their time on Mamelodi Campus. The alumni consider the Club a means for giving back to the Campus and assisting new Mamelodi Campus students to successfully navigate the transition from high school to university.

Striving for continuous improvement

As part of building a research platform and culture on Mamelodi Campus, Prof Ogude has established and leads a campus-wide research effort that seeks to study the impact of the academic programme. This includes everything from its school-level interventions to the students' first-year university experiences, all the way to their transition into mainstream programmes on UP's other campuses. The research team has already completed studies and produced a paper on what constitutes a sense of belonging for UP students who commenced their studies on Mamelodi Campus in their efforts to improve the Foundation Programmes.

ALUMNI SUCCESS

@Nkati M

#TEDxPretoria

#Unapologetic

Let your voice be heard: a Mamelodi Campus alumna's success story

By Nkateko Masinga



I am a writer, publisher, spoken word artist, theatre actress, TEDx speaker and 2018 Mandela Washington Fellow.

I was born in Pretoria and went to Glenstantia Primary School, The Glen High School and Dansa International College. Although I eventually found my passion in the arts, I studied medicine at UP. During my years at university, I was awarded membership into the Golden Key International Honour Society for outstanding academic achievements.

My time at Mamelodi Campus was a necessary foundation to my university career. During 2010, the year that I studied BSc (Biological Sciences) through the Foundation Programmes with the hope of being selected for the MBChC programme, I learned important problem-solving and time management strategies, which helped me long after I was done with the theoretical work in medical school. I continued to use these tools as a student intern in local hospitals and clinics.

I am now best known for my work that has been published in the 2017 edition of the US journal *Illuminations* and is forthcoming in the UK pamphlet press *Pyramid Editions*. My work has also been published in Malawi's *Nthanda Review*, Nigeria's *Ake Review* and *Agbowo*, and the University of Edinburgh's Dangerous Women Project. In addition, I am featured in the South African journals *Type/Cast*, *Poetry Potion*, *Any Body Zine*, *Ja. Magazine*, *Kalahari Review* and *Odd Magazine*, and Unisa's *Guillotine Magazine*, amongst others. In 2015, my poetry was shortlisted for the

'Respond' Human Rights Poetry Award, organised by the United Human Rights Student Network (UHRSN) in the UK. In 2017, I was a finalist for the 4th Crystal Ruth Bell Residency in Beijing, China, and my work was nominated for the 2018 Pushcart Prize: Best of the Small Presses collection – the most honoured literary project in America.

I started my own publishing company called NSUKU Publishing Consultancy in 2016 to assist other writers who wanted to get their work published. NSUKU means "gold" in my home language of Xitsonga. My company now employs three people and assists clients with everything they need to publish their work. In recognition of my work through NSUKU, I was nominated for a Woman of the Year Award in the category of Entrepreneur of the Year. I was also nominated to present a talk at TEDx Pretoria on the topic "The unapologetic pursuit of multiple passions". Pursuing all my interests simultaneously is important to me and I was always excited to share my experiences with other young people, especially those who would like to follow in my footsteps by pursuing careers in medicine and the arts.

I am the founder of Pass The Mic, a non-profit organisation that encourages women to share their experiences through public speaking, poetry and other art forms, and that gives them a platform to express themselves creatively. In June 2018, I traveled to the United States to study at Wagner College in Staten Island, NY. This forms part of the 2018 Mandela Washington Fellowship for Young African Leaders, which aims to invest in the next generation of African leaders.

Here's your chance: Foundation Programmes and admission requirements

Foundation Programme	NSC with admission for degree purposes	NBT	APS	Mathematics	Physical Sciences	Two languages, of which one must be English or Afrikaans	Life Orientation (excluded when calculating APS)	Other
BSc (Mathematical Sciences)	Yes	Recommended	26	Level 5	-	Level 4	Level 4	Three other subjects
BSc (Physical Science)	Yes	Recommended	26	Level 4	Level 4	Level 4	Level 4	Two other subjects
BSc (Biological and Agricultural Sciences)	Yes	Recommended	24	Level 4	Level 4	Level 4	Level 4	Two other subjects
BCom	Yes	Recommended	26	Level 3	-	Level 4	Level 4	-

For information regarding your Foundation Programmes study career, as well as application and admission to the programmes, please visit <http://www.up.ac.za/en/faculty-of-natural-agricultural-sciences/article/16226/up-four-year-programmes>

“Running the Comrades Marathon is a test with great lessons,” says Chairperson of the Mamelodi Campus Alumni Club

By Griffiths Makgareetsa

My running journey started at the end of 2015 when I was looking for something to get my mind off the stresses in my life. I started by just taking walks through the UP RAG farm each day to start off the mornings. It then translated into running. However, at that stage, I was only doing minimal running, and I lost momentum many times, where I would go for as long as two months without running.

Then I started to take running seriously, and I never looked back. At first, I ran without a plan, because I knew nothing about running. I got myself into a challenge on Twitter where a group of people run to achieve a mutual target. After some time, the excitement of the weekly challenges stopped, but I kept on going for my daily runs. I started to read about running and got better with time.

During my final year, running became my life-support. It became a way for me to deal with the challenges that I was experiencing in my life at the time. Going for a run became therapy. In 2016, I suffered from depression, but the more I ran, the more I gained perspective on how to deal with my issues. Most of the solutions to my problems came to me as I was on the road, pushing my body.

The physical pain had become easier to bear than the stress I encountered as a result of my lack of money for my final year of studies and my emotional trauma. During this time, I was forced to work two part-time jobs to finance my studies while supporting myself. I also lost a friend and my father to death in a period of two weeks. I had to be put on anti-depressants to cope with my final exams. However, more than anything else, running helped me to get through the hardships and graduate. For me, running is more than just a sport. It is my life. I managed to stop taking medication because I have learned to grab my running shoes and hit the road when I find myself overwhelmed by stressful situations.

The week of the Comrades Marathon was rough because we had to decrease our running to the lowest levels possible. Being told not to go running was frustrating. The night before the race was even worse, because the nerves were overwhelming. When we got to Pietermaritzburg at 05:00 on the morning of the race, the excitement was tangible. I was standing with two gentlemen who were running the race for the 5th and 6th time respectively. They motivated me and told me that I should not worry about the things that I had not done. They said that I should just concentrate on the race and do my best. After we sang the national anthem and heard the shot of the starting gun, we were heading from Pietermaritzburg to Durban.

My body was still with me and supporting the decisions I made until I passed the 60 km mark. At that point, my knee started to stress, but it was still going. I kept pushing myself, but I started to fail after the 60 km mark. I had severe pain while I ran, so I slowed down to give my knee some rest in order to keep going. The downhill was hard on my injured knee, and the pain started getting to my head. I remember thinking of giving up, but I fought against this thought as it would have meant that I came all the way from months of training to fail. I had to go deep inside myself to find the strength to go on.



Griffiths during the Comrades Marathon.

When my body gave up on me, I had to depend on my will power to push on. I thought about how I would be affected if I did not finish the race. I knew that it would send me straight back into my depression, and I did not know how I would recover. I reminded myself that I have been through worse situations and that I could not give up in the last moments.

I was reminded that the race was not only about me, but that it was also about the people at home who supported me – the people who believed that I could do it on the days that I had doubts. I ran for the people who suffer from mental health illnesses in a world that believes mental health is a joke. I wanted to show those with dreams that seem far-fetched that their dreams are possible.

With 14 km of the race left, I had excruciating pain in my knee, which moved to both of my ankles. This made it extremely difficult to run. After having looked at the time left before the cut-off and related it to the distance I had to cover, my math told me that I might make it if I just walk. I told myself that the worst thing I could do was to stop, and that I must push myself to walk to the finish line. Watching other runners pass by me while I was worried that if I slow down or stop I might not make it was difficult.

A gentleman by the name Thabo walked with me for the last 2 km. He helped me to get myself together and encouraged me to run to the finish line for the final 200 m. The best moment of the race was receiving my medal. I learnt many lessons through this race. The highlight for me was discovering that if your mind is willing, even your body can't stop you. Work on the mind and everything else shall happen accordingly.

PRE-UNIVERSITY INITIATIVES ON MAMELODI CAMPUS

Mamelodi Campus launches an after-school homework programme

By Simphiwe Petros

In February 2018, Mamelodi Campus commenced with a new pre-university intervention, the after-school homework programme for Grade 8 learners. In its pilot stage, the programme provides homework support for 50 Grade 8 learners from Lehlabile Secondary School and Solomon Mahlangu High School.

The after-school homework programme, which provides after-school support to learners on Tuesdays and Thursdays, is run in partnership with UP's Postgraduate Students Association for the Natural and Agricultural Sciences (PSANA). Members of PSANA are students studying towards honours, master's and PhD degrees at UP's Faculty of Natural and Agricultural Sciences.

The programme has also partnered with the Mamelodi Campus Library, where learners visit the library on Thursday afternoons. Here, they

are equipped to conduct research, and are encouraged to read more.

The after-school homework programme incorporates other activities to provide a holistic learner experience. For example, an architecture master's student conducts activities with the learners for her dissertation with the aim to design the school of the future. It is also looking to establish other activities in the future, which will aim to cultivate academic success and equip the learners to become effective leaders.

COLLABORATION ON MAMELODI CAMPUS

Pan-African Youth Leadership Program (PAYLP)

By Ruth Koko, Mae Jemison US Science Reading Room



On 20 June, the four Ribane Laka High School learners who were selected to represent South Africa in the Pan-Africa Youth Leadership Program (PAYLP) in August 2018 participated in a teleconference pre-departure orientation programme at the Mae Jemison US Science Reading Room. The learners are Given Ketelo (16), Fortunate Hlatswayo (17), Precious Tladi (16) and Bhekumuzi Phala (16). They, will be accompanied by Mr Prince Mavundla, Programme Coordinator at the Mae J Reading Room on Mamelodi Campus.

In the first week of August, the learners from the Mae J Reading Room travelled to the United States to attend the three-week PAYLP from 4 to 25 August. The PAYLP supports long-range US foreign policy priorities by offering secondary school youth (ages 15 to 18) and adult educators the opportunity to explore priority policy themes such as conflict resolution, economic development, entrepreneurship, civic education, youth leadership, women's rights, and respect for diversity.

Through the intensive exchanges in the United States, participants engaged in workshops on leadership and service, community site visits related to the programme themes and subthemes, interactive training in conflict resolution, presentations, visits to high schools, local cultural activities, and homestays with local American families.

A key component of the programme requires participants to develop follow-on community-based projects in their home communities to effect positive change after their return home. During this visit, participants travelled to Atlanta, GA, Washington, DC and Kansas City, MO. The programme is sponsored by the US Department of State.

The learners who represented South Africa also participated in the 2017 Youth Citizenship Action Programme (YCAP) at the Mae J Reading Room. YCAP assists local youth to identify challenges in their communities and develop solutions to attend to these challenges. Apart from partnering with Mamelodi Campus to promote science education for learners in local schools in order to improve access to STEM-related fields of study at UP, the Mae J Reading Room also seeks to develop leadership skills linked to and rooted in community issues in their members.

The Australian Indigenous Mentorship Experience (AIME) comes to Mamelodi Campus

By Kelahloko Mashiloane

On 12 May 2018, AIME launched its activities on Mamelodi Campus. The mentorship programme was developed in Australia and launched in partnership with UP as part of AIME's expansion worldwide through partnerships in South Africa, Uganda and Canada. AIME connects university students as mentors with high school learners from disadvantaged communities to assist them in achieving their aspirations to gain access to higher education institutions. The programme's work with Tsako Thabo High School will commence on Mamelodi Campus to bring together parents, teachers, mentees, and all other stakeholders involved in the AIME mentorship model.



AIME mentors at the launch of the programme with Prof Ogude and Prof Norman Duncan, Vice-Principal for Teaching and Learning.

Mentor recruitment among UP students commenced at the beginning of the year. Some 130 mentors applied through the AIME website, with 45 being interviewed and 40 enrolled as AIME mentors. The mentors, all from diverse fields of study at UP, were trained on the AIME method of mentoring. The mentee application process also took place at the beginning of the year, following the formalisation of the partnership between Tsako Thabo High School and AIME. More than 300 learners applied, but the number of enrolled learners was reduced to about 180.

The AIME programme comprises several days that the learners spend at the University. The first programme day for Grade 10 and Grade 11 learners took place on 18 May 2018, and the first programme day for Grade 8 and Grade 9 learners took place on 25 May 2018. Grade 12 learners were excluded from the programme as they are focusing on their final year in school. However, Grade 12 learners will be offered several hours of support, where they will be assisted with applications to institutions of higher education.

During the programme days, the learners focus on an episode of AIME TV. The content of this material is different for all grades with the exception of Grade 9 and Grade 10, where the content is the same. AIME TV profiles successful influencers in interview sessions with the CEO and founder of AIME. The goal is to show the learners successful mentors across the globe and help them to elevate their aspirations. The learners also engage in an activity called "failure time", where the programme team gathers as many different props and resources as they can find and everyone jumps in to have a go at something

they've never done before – making failure the new normal. By removing the stigma of shame that comes from trying and not succeeding, participants are taught that failure is where the magic happens.

To support the learners with their schoolwork, AIME presents a tutor squad programme, where the student mentors travel to the school to provide academic support to the high school mentees. During these sessions, learners bring school work that they need assistance with completing. AIME mentors demonstrate the power of education by engaging with the high school learners and making their schoolwork relevant. Teachers assist the tutors by highlighting parts of the curriculum that are challenging for their learners. Tutor squads take place once a week.

AIME also offers intensive career and post-school transition support for Grade 12 learners during their final year of school and in the six months after they have completed high school. The AIME mentors will turn up during this time to offer their support for whatever is needed to help participants embark on a positive post-school pathway.

In an attempt to break down barriers, the AIME programme will soon host AIME Unplugged, a free volunteer concert focused on diversity and inclusivity. The concert has the ability to increase mentor awareness and unify students. In the build-up to the concert, students can engage in a competition that encourages connection. Students must post a picture with a stranger on campus, and caption it with one good thing they learnt about the other person with the hashtags #AimeUnplugged and #ConnectingThroughMusic.



Bill Moses with Prof Ogude on Mamelodi Campus.

Kresge Foundation visits Mamelodi Campus

Bill Moses of the Kresge Foundation visited Prof Ogude on 11 June 2018 to learn of developments in the work the Kresge Foundation supports at Mamelodi Campus. The Kresge Foundation financially supports the planning and development of the Mamelodi Collaborative, which comprises the partnership between UP and Rutgers University-Newark. Mr Moses was accompanied by his colleagues from the Kresge Foundation, some of whom were travelling to South Africa for the first time.

Applied mathematics opens an array of possibilities

By Regina White

On 16 May 2018, Prof Yves Dumont, a visiting professor in applied mathematics, presented a guest lecture on Mamelodi Campus. Prof Dumont's research interests are mathematical epidemiology, mathematical ecology, numerical analysis, plant-insect interactions and vector-borne diseases.

His presentation showed the audience that great analytical skills, which the study of mathematics can harness, can lead to

relevant assumptions on which a workable mathematical model can be developed. It showed that the collaborative nature of applied mathematics research provides the opportunity for lifelong learning, since mathematicians can apply their knowledge in many specialised fields.

Prof Dumont's work on the conservation of Barau's petrel, an endangered seabird found on Reunion Island located in the south-west of the Indian Ocean, gave an apt demonstration of mathematical ecology

in action. In their study, Prof Dumont and his colleagues considered the impact of introducing non-native species of cats and rats on the existence of these seabirds. Their study predicted outcomes for the introduction of cats (a superpredator) that prey upon rats (a mesopredator), where they both share a prey species (Barau's petrel). Prof Dumont and his team developed differential equations for the rate of change experienced by the bird population through its various growth stages, and considered equations that represented the population rates of the predators.

COMMUNITY ENGAGEMENT ON MAMELODI CAMPUS

Mamelodi Campus collaborates with a range of UP faculties to bring specialised community services to Mamelodi. Not only do these services contribute to the upliftment of the community, but they also provide students with the opportunity to gain practical experience in their chosen fields.

Mamelodi Animal Health Clinic (MAHC)

MAHC provides primary animal health care to the community of Mamelodi and the surrounding areas of Eersterust and Nellmapius.

The main service of the clinic is sterilisation and vaccination, through which it seeks to combat threats like rabies. It provides affordable veterinary services to improve the wellbeing of the animals. First-year BSc students on Mamelodi Campus who are still applying to be selected for the Veterinary Science programme volunteer at the clinic to gain exposure to and experience in their intended field of study and participate in community service.

Open Monday to Friday from 08:15 to 14:00

Siyathemba Clinic for Occupational Therapy

The Siyathemba Clinic provides school children with free therapy.

The clinic services children with disabilities such as cerebral palsy, learning difficulties, mental illnesses and epilepsy. Treatment options include individual and group therapy. It is run by final-year occupational therapy students, and thus operates in three blocks in a year that run for seven weeks.

Open Monday to Friday from 08:00 to 16:00

Itsoseng Clinic

The Itsoseng Clinic offers comprehensive psychological services to the community in order to turn needs into opportunities.

The clinic provides an open, accepting atmosphere where the needs of clients who experience psychological difficulties that result from mental health and other life stressors, which often occur from the challenging socio-economic conditions in Mamelodi, can be addressed. Primary services include psychological assessments, psycho-legal services, counselling with individuals, groups, couples and families for a variety of issues. These include depression, stress-related conditions, early childhood development and learning problems, parent-child relationships, addiction in the family and destructive coping skills like drug abuse, violence and aggression, as well as domestic violence, women and child abuse, and rape. Other services include expressive art therapy and career guidance, as well as psycho-education workshops and conferences aimed at preventing and dealing with mental health and family and community issues. It also acts as a training base for Psychology students. The Itsoseng Clinic aims to provide quality care and opportunities for community members to experience growth, development and healing.

Open Monday to Saturday from 09:00 to 16:00

Business Clinic hosts two-day workshop to invigorate local cooperatives

By Sadi Motsuenyane

On 11 and 12 April 2018, the Mamelodi Campus Business Clinic hosted a two-day workshop to engage critical stakeholders who are leaders and policy makers in anchor institutions regarding opportunities for linking cooperatives to economic opportunities.

Apart from acting on the call by the national government of South Africa for commitment to the fight against the persistent challenges of rising poverty, unemployment and inequality, the

workshop also sought to assist cooperatives to develop a funding proposal for the Department of Small Business Development and Cooperatives.

National government has made a call for public and private sector institutions to contribute towards its objective of radically transforming the economic environment in South Africa.

In order to achieve this objective, government is promoting inclusive growth by ensuring that the potential of small, medium and micro enterprises (SMMEs) and cooperatives is

unleashed to access economic opportunities created within these sectors.

In this regard, the President pronounced the need for government departments and institutions to set aside 10% of their procurement for cooperatives and SMMEs. Institutions such as schools, universities, hospitals and clinics are economic anchors in communities and can leverage their economic power for community wealth creation. A number of local Mamelodi anchor institution representatives attended the workshop on Mamelodi Campus.

The Mamelodi Business Clinic enables entrepreneurial development through innovative interventions that serve to address social problems such as unemployment and poverty faced by the Mamelodi community.

Find more information at: <http://www.up.ac.za/business-clinic>
Email: businessclinic@up.ac.za | Telephone: 012 842 3580

Solomon Kalushi Mahlangu Memorial Lecture



The event was attended by the Minister of Energy, Jeff Radebe, Former Deputy Minister of Defence and Military Veterans, Thabang Makwetla, ANCYL Secretary-General, Njabulo Nzuza, and ANC Gauteng Provincial Secretary, Hope Papo, as well as Mvimbi Masilela, Prince George Mahlangu, Themba Pakathi, John Kekana, Steven Mahlangu, Mtungwa Mahlangu, Gideon Mahlangu, Kgosientso Ramakgopa and Mapiti Matsena, among others.

Mamelodi Campus celebrated the legacy of Mamelodi legend, Solomon Kalushi Mahlangu, with the Solomon Kalushi Mahlangu Memorial Lecture on 6 April 2018.



South African musicians pay tribute to Dr Philip Tabane.

Farewell to Dr Philip Tabane

Mamelodi Campus bids farewell to veteran musician Dr Philip Tabane (1934–2018) on 27 May 2018.



STUDENT INITIATIVES

Launching the StreetStore at UP



In May 2018, a group of concerned Mamelodi Campus students, led by Paseka Gaola, presented Prof Ogude with a business plan to establish the StreetStore on Mamelodi Campus. In support of the student initiative, Prof Ogude initiated a formal process to institutionalise the initiative and established a campus-wide board to advise and direct the work of the StreetStore at UP.

The students developed the proposal as part of their academic activities in the Business Management module presented on Mamelodi Campus. The goal is to enable students and staff on the Campus to help attend to some of the needs of poor and hungry Mamelodi Campus students and people in the local community. The StreetStore supports the broader efforts of UP to assist needy and disadvantaged students in the areas surrounding the University's campuses.

Needy students are a reality across the South African higher education sector. Many universities are grappling with how best to attend to this particular challenge on campuses across the country. Phathu Luvhengo (destinyconnect.com, 14 June 2018) reports that "testimonials and presentations from students across the country have revealed that large segments of the student population are struggling because they have no food. This is according to students who attended this year's Siyaphumelela Conference. They have expressed deep concern over the high rate of food insecurity at institutions of higher learning. While there are no statistics on exactly how many students are food insecure, the problem is especially prevalent among those at universities."

"The overwhelming consensus that emanated from academics who attended

the Siyaphumelela Conference was that the majority of students who go hungry are those from poor backgrounds, from low-quintile schools and are often first-generation students in their families," Phathu says.

The conference, which was opened by Naledi Pandor, the Minister of Higher Education and Training, highlighted the adverse effect student funding has on South African students.

Phathu reports that, in her address, "Minister Pandor stated that students who are inadequately funded experience great challenges with regards to food security, suitable accommodation, and the ability to obtain textbooks and other resources. These tend to be poor, black, working-class students, which means we need to develop models of funding and support that address their needs. To this end, government has chosen to introduce a full-cost bursary scheme for students whose family income is under R350 000 a year."

"However, to tackle this pervasive issue, lecturers, SRCs, civil society organisations, students and initiatives like Siyaphumelela have had to step in with food security interventions at institutions of higher learning," Phathu says.

Because many of the students the report speaks about are found on Mamelodi Campus, the StreetStore aims to respond to this anomaly facing their peers on the Campus and the poor and homeless people in the local community.

As a model, The Street Store™ is a pop-up store for the homeless that can be created in any community around the world where the homeless can shop for free. The Street Store™ is the brainchild of Capetonians Kayli Levitan and Max Pazak from the advertising agency M&C Saatchi in Cape Town. Since its inception in 2014, the organisation has hosted more than 700 stores globally.

In order to help needy students succeed, Mamelodi Campus students intend to galvanise the campus community to help them attend to some material needs by donating food and clothing.

The Street Store™ proved to be a meaningful on-campus project. As a result, the group of concerned Mamelodi Campus students took the organisation's joining pledge and hosted the StreetStore at UP to help needy students in partnership with the Office of the Dean, the Mamelodi Campus Business Clinic and the Department of Student Affairs' Student Support Division.



Vincent Mabuza from the Student Support Division (back row, first from left) and Tatho Moekwena from the Mamelodi Campus Business Clinic (back row, second from left) with the UP StreetStore team.