



SUNCEP



## LEARNER ENHANCEMENT

The Learning Enhancement component of SUNCEP had the privilege to tutor 201 students over the June holidays. Projects in both the Western (Atlantis, Malmesbury and Stellenbosch) and Northern Cape (Calvinia and Namaqualand) hosted learners in grades 10 to 12, focusing on FET Mathematics and Physical Sciences. While other projects have had opportunity to grow over the years, the Stellenbosch Hub and NaMaSci programmes successfully hosted their first groups of students, who already displayed focus and enthusiasm this early on.

During this round of tutoring, utilization of online testing was made for the Physical Science pre- and post-tests. This was an effort to decrease marking time and grant tutors access to instant and in-depth feedback on learners, granting them the ability to focus directly on group-specific problem areas. This method was used successfully, with positive feedback from both tutors and learners, and will thus be explored further for future use.

The only primary school programme, LitNumHub, in the Breede River Valley displayed warm spirits and high attendance over the cold winter holiday. This programme focuses on the development of fundamental literacy (Afrikaans) and numeracy (Mathematics) skills. Learners received warm softshell jackets to counter the cold mornings, as well as school bags stocked with dictionaries and stationary. The building project at Botha's Halte is progressing well and, upon completion, this fully integrated ICT School will become the new venue for the LitNumHub holiday schools, as well as a resource center for other associated schools in the area.



# TEACHER PROFESSIONAL LEARNING

## ADVANCED DIPLOMA IN EDUCATION: IP, SP AND FET MATHEMATICS

The Advanced Diploma in Education in Mathematics teaching is in full swing. The focus of this programme is to strengthen and enhance the existing specialisation of the Mathematics teacher. This qualification does not solely focus on pedagogy and content but will also focus on ICT strategies to enhance the learning of the content and pedagogy in the classroom.

SUNCEP has concluded its second week long contact session at the CTLI with a 98% attendance. After covering the core modules in the first week long contact session, the focus shifted to addressing the pedagogical content knowledge of mathematics teaching and learning. The course participants engaged positively with the course facilitators and the left the course feeling motivated and inspired to apply their new knowledge and skills. The last contact session will take during the October school holidays. This programme is delivered part-time over 2 years with the contact sessions held during school holiday periods.

The course participants were also surprised by a visit by the MEC for Education in the WC, Ms Debbie Schaffer. Her visit was appreciated by the course participants.



### ICT INTEGRATION: STRATEGIC MANAGEMENT

SUNCEP has successfully concluded its course with 33 participants at the CTLI. After developing their strategic plans and associated operational plans, the 10 schools who attended the course are now confident in implementing their ICT strategic plans. SUNCEP would like to thank the WCED and the Cape Teaching and Leadership Institute for its support.

All attendees have passed the course and will receive their certificates at a planned certification ceremony towards the end of October.

### TECHNICAL MATHEMATICS AND TECHNICAL SCIENCE

SUNCEP has also successfully concluded its training course with teachers in Technical Mathematics and Technical Science. This training programme was initiated by the WCED, and funded by the ETDP-SETA. The purpose of this programme is to equip teachers in Technical Schools with the requisite skills to teach Technical Mathematics and Technical Science. SUNCEP was pleasantly surprised by a visit by the MEC for Education in the WC, Ms Debbie Schaffer. Espousing words of encouragement, the course participants were appreciative of her visit.

### DATA MANAGEMENT

After securing funding from the Anglo American Chairman's fund, SUNCEP developed and delivered a Data Management course to 44 education district officials from Metro South Education District. The aim of this course was to provide the course participants the required skills to manage large data sets. This was a three day course held at SU and the follow course, Data Analysis, is scheduled for three days in September 2018. The overall outcome of attending both courses is for the course participants to develop their data management and analysis skills so as to make data informed decisions when faced with educational challenges within the district. SUNCEP looks forward to hosting the Data Analysis course in September.

### SCHOLARSHIP OF READING

SUNCEP was also excited to host special needs teachers (remedial teachers) from around the Western Cape and offer them a four week long reading course. The aim of this course is to teach remedial teachers how to assist learners with reading challenges. The first week long contact session was successfully concluded at SU during the first week of the June school holidays. Hosting 113 teachers, the course participants engaged positively with the course facilitators. The next three week long contact sessions will be conducted at the CTLI in September and October. This course is funded by the WCED.



# UNIVERSITY PREPARATION PROGRAMME

## SciMathUS

### MBALI KUBHEKA'S STORY



My SciMathUS journey is one that I am always delighted to speak about as it was a turning point in my life. I am still grateful for the opportunity and what it has done for me. When I started SciMathUS, I set a goal of getting a distinction in Mathematics at the end of the year and a full scholarship for my university studies. I left SciMathUS with five distinctions (one of them being in Mathematics) and I was awarded the Most Improved student in Accounting Award. I also received a Recruitment Bursary from the university. What made my journey even more special was the support system I received from the program staff, something I have also lacked and yearned for. Moreover, being provided with accommodation close to campus and having access to great study facilities contributed immensely to my academic performance.

Prior to applying to the program, I also engaged the same alumni who told me about SciMathUS about the programs that the university offered in the EMS faculty. I was trying to find something that would excite me and something that would be suitable for my interests and character. He mentioned BCom Investment Management and after doing enough research on it, I realised that it was the course I wanted to study. My program of choice was also confirmed when SciMathUS organised a psychometric test session for us.

When I started my undergraduate degree, I was placed at Heemstede Ladies Residence. This was with the help of the Recruitment Bursary I had received. I was quite grateful

for the bursary, however, I still needed to finance own tuition fees since it was only covering my accommodation. This was quite a stressful time in my life, especially since securing a full scholarship after SciMathUS was one of the main reasons I had opted for the program. After a few months into my first year in university, I received a phone call from the bursary office informing me that I had been shortlisted for a Shell Scholarship. I was quite surprised as I hadn't applied for it and after a phone call interview, I was awarded the scholarship.

After receiving the scholarship, I was determined to become a Golden Key member. I also wanted to get into the university summer school program which one of my lecturers in SciMathUS had told me about. I worked hard enough to get the grades I needed for the summer school and I was afforded the opportunity to spend two weeks at the European Business School in Germany. The course theme was "Doing Business in Europe" and we got to visit, among others, a German car manufacturer and the European Parliament. Through the summer school program, I was able to meet young people who were doing great things in their fields of study. I was also the only undergraduate student amongst the four Stellenbosch University students. During my time in Germany, I was taken back to the international exchange I had gone on in high school. This is also when I realised that the opportunities I have been granted are the only things that separate me from other young people in Khayelitsha.

Although I had been avoiding leadership positions, I decided to run for the mentor position in my residence in second year. This allowed me to contribute to the lives of young people in the hostel and it assisted in addressing the lack of representation in the residence leadership structures. After serving my term, I decided to move out of Heemstede to focus all my attention into getting into Honours as they only chose the top twenty applicants. This was after a successful second year in terms of

academics as I had finally been invited into the Golden Key Honours Society. I managed to get into the Financial Management Honours programme after a very difficult third year. In my third year, both my grandparents passed away within a week apart, I failed one of my elective modules and I had to take an extra one to make up the credits. During this time, I received immense support from some of the SciMathUS staff and through all their help, I managed to graduate on record time.

During my Honours year, I applied for the Nedbank Corporate and Investment Banking Graduate Program which I heard about through the university's Career Office. I had always wanted to become an Investment Banker and I always wanted to relocate to Johannesburg. After numerous interviews and assessments, I got the job. I am now a Graduate Trainee Investment Banker for one of the top banks in South Africa in the Export Credit Finance division. I am also the youngest and the only female in my team. My job entails structuring insurance-backed funding for mostly developmental projects across Africa. We work a lot with the Ministry of Finance across various African countries and I am loving it so far. Within my first five months with the bank, I have already been granted the opportunity to attend a Trade and Export Credit Finance Conference in Kenya. The application process was very competitive but it was worth it.

To grade 11s and 12s, my advice to you is to seek out opportunities and take the initiative to find unconventional careers. Also, dream big because you can only go as far as you see yourself and reach out for help, there is always someone who's willing to assist you. Most importantly for those of you who come from backgrounds similar to mine, your circumstances don't define you, you define your own journey! And when you make it, remember that your life experiences are valid. Don't be ashamed of who you are and where you come from, there is always something that someone else can learn from you.

# UNIVERSITY PREPARATION PROGRAMME

## Talent Development Programme (TDP)



The winter installment of the Talent Development Programme was attended by over 700 Grade 11 and 12 learners at our 9 provincial centres. The national university preparation programme is a project of the Department of Science and Technology and is hosted by SUNCEP.

The 5 day contact sessions were filled to the brim with academic enrichment opportunities in both Mathematics and Physical Science. A strong focus is placed on the academic enrichment of each learner to assist them in reaching their goals of accessing higher education in MST related fields. All centres also received the welcome gift of an ICT Hub, which includes six laptop computers, which learners will use to access university websites, to complete bursary applications, to liaise with various institutions and also to conduct subject specific research during contact sessions. The ICT Hubs will be further enriched with the addition of a printer and access to various software programmes at the next holiday school.

The foundational skills development component of the programme was presented by Dr. Sharon Malan from Stellenbosch University and included tailor-made 2 hour telematic broadcast sessions for each grade. Learners were able to interact with the facilitator through Whasapp and SMS. These sessions are also live-streamed via Youtube to increase the audience footprint.

TDP participants were excited upon receiving their winter jackets during the holiday school week.

The SUNCEP team aims to continually strengthen the content and pedagogical knowledge of teachers recruited to serve as DST: TDP tutors through various initiatives.

It is with great sadness that we announce the passing of the Centre Administrator in Mpumalanga. Mr. Maseko, who was the principal at Emakhazeni Boarding school in Machadodorp. joined the the programme at the end of 2017 and greatly contributed to the success of the TDP in Mpumalanga. Our sincere condolences go out to the Maseko family, as well as all the staff and learners from Emakhazeni School and the TDP team in Mpumalanga.



# RESEARCH



## SAARMSTE 2018

SUNCEP successfully hosted the 16<sup>th</sup> Annual Southern African Association of Research in Mathematics, Sciences and Technology Education (SAARMSTE) Research School at the Lord Charles Hotel in Somerset West from 19 to 22 June 2018. It was attended by 60 facilitators and participants from 10 different countries that included the South Africa, Zambia, Swaziland, Uganda, Namibia, Zimbabwe, Malawi, Brazil, Kenya and the UK.

The research school attracted PhD students and postdoctoral fellows from across the sub-region to support them in their doctoral and postdoctoral research efforts. A gala dinner which was hosted by SUNCEP was attended by Professor Kenneth Ngcoza, the President of SAARMSTE,

with the Vice Rector (Research and Innovation), Professor Eugene Cloete as the guest speaker. The event was also attended by Prof Christa van der Walt, the Vice Dean (Research) in the Faculty of Education and SUNCEP staff including the Director, Dr Trevor van Louw and the Deputy Director, Prof Mdu Ndlovu. From the feedback of the participants the 2018 SAARMTE Research School was a welcome learning experience.

The success of the event can be attributed to the hard work done by both the International and Local Organising Committees (LOC) with Prof Hamsa Venkatakrisnan at the helm. The LOC consisted of Prof Ndlovu, Pauline Hanekom, Paul van Vollenhoven and Dr. Cerenus Pfeiffer. Well done to the team!

