

Winner of the 2008 Institute for Marketing, Advancement & Communication in Education (MACE) Excellence Award for Best Internal Publication

Celebrating academic excellence

UKZN celebrated the conferral of 7 863 degrees at 18 graduation ceremonies from 16-24 April.

The Faculty of Education awarded 1 909 degrees; Humanities, Development and Social Sciences 1747; Engineering 385; Science and Agriculture 1 041, Health Sciences 388, the Nelson R Mandela School of Medicine 350, Management Studies 1 700; and Law 343.

Nine honorary doctorates were conferred on individuals who over the years have made significant contributions to uplift society through their respective careers. These accolades were bestowed on Mr Paddy Kearney, Professor Richard Mkandawire, Professor Deuteronomy Ntuli, Professor Sibusiso Bhengu, Ms Deborah Budlender, Mr Raymond Ackerman, Justice Pius Langa, Professor Bruce Walker and posthumously to Mr Billy Nair.

Two hundred and fifty four students earned their degrees *cum laude* and 111 *summa cum laude*. Women proved their mettle, comprising 59 percent of this year's graduates.

Vice-Chancellor Professor Malegapuru Makgoba said graduation ceremonies were significant because they celebrated the success of graduates who acquired their degrees following years of hard work. He added that graduations marked years of personal sacrifice

parents made in educating their children.

Professor Makgoba commended academic staff for their role in preparing graduates for their chosen careers.

"We, at the University, are indeed privileged to have some of the brightest and best minds in academia amongst our staff. Academics, who are internationally recognised for excellence and innovation in their disciplines and who, through their lectures, impart the highest level of education to our students," he said.

Four academics were acknowledged for their dedication to teaching through the Distinguished Teachers' Award. Professor TE Madiba, a Professor of Surgery at the Nelson R Mandela School of Medicine; Dr Francesca Balladon, a Senior Lecturer within the French Programme; Dr Robyn Joubert, Head of the School of Audiology, Occupational Therapy and Speech-Language Pathology; and Professor Kriben Pillay, a Programme Co-ordinator at the Leadership Centre were the recipients for 2008.

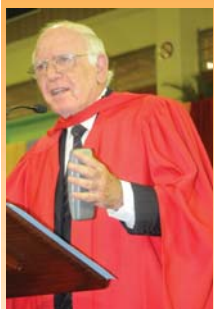
Parents and graduates present were made aware of the UKZN Pact launched on 14 April which compels members of the University community to promote the goals of "respect, dignity and commitment to quality education."

- Neesha Maharaj



Professor John Mubangizi, Deputy Vice-Chancellor and Head of the College of Law and Management Studies; Chief Justice Pius Langa; UKZN Chancellor, Dr Frene Ginwala; Mr Mac Mia, Chair of Council, and Professor Dasarath Chetty, Pro-Vice-Chancellor, Corporate Relations.

Honorary Doctorates



Mr Raymond Ackerman.



Professor Sibusiso Bhengu.



Ms Deborah Budlender.



Mr Paddy Kearney.



Justice Pius Langa.



Professor Richard Mkandawire.



The late Mr Billy Nair.



Professor Deuteronomy Ntuli.



Professor Bruce Walker.

Pictures: Anand Govender and Supplied

Gender revolution

UKZN's Faculty of Science and Agriculture conferred degrees on 1 000 students at its recent graduation ceremonies in Pietermaritzburg and Durban. Among these were a large cohort of women in the discipline of Animal and Poultry Science. This bodes well for the livestock and poultry industry which can look forward to an injection of highly qualified women graduates.

Over 70% of the University's 2009 graduates in the field of Animal and Poultry Science were women – a trend which, according to Programme Director, Dr Mariana Ciacciariello, has gained momentum over the past few years. The traditionally male-dominated field is becoming more attractive to women who find the work interesting and rewarding. Dr Ciacciariello conceded that some agricultural industries prefer women animal and poultry science graduates because they are highly competitive, tend to pay more attention to detail and show a high degree of dedication.

This year also saw the first cohort of graduates in the Animal and Poultry Science Honours programme, 75% of whom were



Some of the Animal and Poultry Science staff and students at their graduation ceremony: (l-r) Mrs Nicky Tyler (lecturer), Ms Tarryn Simpkin, Ms Alet Bekker, Dr Mariana Ciacciariello (Programme Director) and Ms Sarah Hallgreen.

women. In the past, students could only enrol for a four-year Bachelor of Science in Agriculture specialising in Animal and Poultry Science. Now, BSc graduates in other related fields who wish to pursue a postgraduate degree in Animal & Poultry Science can undertake this one-year preparatory programme.

Ms Marion Young, a lecturer in Animal and Poultry Science, said it was very encouraging to see such a "sharp bunch" of women with

diverse interests graduating in a field that is crying out for expert knowledge and skills. She was particularly proud of her two students who conducted ground breaking research on African Horse Sickness, a growing field of interest.

The majority of the 2009 women graduates are already gainfully employed at agricultural industries in southern Africa. The rest have embarked on further studies in the fields of equine science, animal

breeding, reproductive physiology and poultry nutrition.

Ms Tarryn Simpkin who is currently working for Purina Pet Nutrition said that although the University has a large number of women registered for programmes in Animal and Poultry Science, the industry is still male-dominated. Ms Alet Bekker who obtained a position with National Chicks has found a similar scenario but says it is rapidly changing.

Although a slow process, women are gradually breaking the mould and dispelling the myth that agriculture is for men. The 2009 cohort of UKZN women Animal and Poultry Science graduates will not only contribute to the country's scarce skills areas; they will also prove that women have what it takes to succeed in a man's world.

- Vicky Crookes

Picture: Vicky Crookes

Summa cum laude for couple

HUSBAND and wife, Pradeep and Natasha Sharma reaped the fruits of their hard work on 23 April when they were both conferred with an MBA *summa cum laude*.

The couple's academic record boasts distinctions in all 17 courses undertaken. Mr Sharma's marks range from 75% to 94% and Mrs Sharma's academic rankings are 72% to 94%.

The mother of a five month old daughter said: "Balancing work, family and studying was not easy

but it was imperative. Having my husband studying for his MBA at the same time made things easier. I feel extremely excited as I believe that I am now better equipped to contribute to business in South Africa and globally. Most things that are worthwhile do not come easily but that only makes the success so much sweeter."

Mr Pradeep attributes his achievement to the excellent support structure offered by the Graduate School of Business. He said: "The group-based method of assign-

ments, projects and studying has worked extremely well over the duration of the MBA. My group had the advantage of having the four pillars of business represented in the experience of the individuals in the group. We had students with a financial, marketing, production, engineering and human resources backgrounds and this lent itself well to learning from each other. The experience in the group from the various disciplines mentioned brought more depth and knowledge to the MBA."

The couple believes that their employer, Tongaat Hulett Sugar, has been a benchmark for excellence because it promotes a learning environment. Mr Sharma works as a Process Analysis Engineer and Mrs Sharma holds the position of Chemical Engineer in the Technology and Engineering Division.

"We feel a sense of satisfaction and joy, however, there is also a need to ensure that we use the education we are provided with, in this country of opportunity, to make a difference as future leaders and captains of industry," they said.

- Thembeke Dlungwane

Against all odds

NOT only did Mrs Eunice Mihigo have to travel from the Eastern Cape to Durban twice a week to attend lectures, she also suffered the devastation of losing her computer containing most of her research notes when her house caught alight. She picked up the pieces, however, and achieved a Masters Degree in Population Studies.

A junior sociology lecturer at the Walter Sisulu University in the Eastern Cape, the mother of three, who was pregnant at the time, lost all her belongings in the fire last June.

"Coping with losing my home and studying was difficult but I knew I had to produce a dissertation. It was tough because I was also pregnant at the time but I convinced myself to pick up the pieces of my life and work," said Mrs Mihigo.

Her dissertation *Reproductive Decision-Making in an Era of High Levels of HIV and AIDS and Unwanted Pregnancy among Young People: A Case Study of the Nelson Mandela Drive Campus (NMD) in the Eastern Cape* assessed the sexual behaviour of young adults between the ages of 18 to 24. The study also looked at unwanted pregnancies among young adults in the same age group.

Mrs Mihigo's research suggested that majority of the participants believed that HIV and AIDS is an issue to be discussed among those who are infected with the virus. She said participants did not seem to take the disease seriously.

Mrs Mihigo, who is in the process of developing her research into articles for publication, expressed her gratitude to her supervisor, friends and husband for their support.

- Neesha Maharaj



Mrs Eunice Mihigo.

Picture: Anand Govender



Mr Pradeep Sharma, Dr Raymond Ackerman and Mrs Natasha Sharma.

Picture: Anand Govender

Inspiring role model

Doctor Praveena Sukhraj-Ely is a role model for visually impaired students.

Her thesis, *Inclusive Education Policy and Practice: Investigating the Educational Rights and Needs of Learners and Students with Visual Impairments in South Africa*, investigates inclusive education for visually impaired students and learners.

Dr Sukhraj-Ely (30) has recently been promoted to the position of Senior State Advocate in the Litigation Unit of the Department of Justice after being employed as a Senior State Law Adviser at the South African Law Reform Commission in Pretoria.

She explains that her decision to undertake the study was not in order to further her legal career but as a means to raise awareness in communities about the challenges

faced by visually impaired learners and students in South Africa.

The study evaluated the pros and cons of the inclusion of visually impaired learners in mainstream schools and South African universities. Case studies were undertaken in the Western Cape, Venda, Limpopo, Gauteng, KwaZulu-Natal and the Northern Cape.

The study showed that the majority of poorer schools in South Africa do not register disabled learners due to a lack of resources. However, more advantaged schools can provide human and technological resources visually impaired children need.

Dr Sukhraj-Ely stressed that there is a dire need for the implementation of mechanisms to increase human resources, skills development of teachers, capital resources in schools, and community awareness to deal with blind and disabled learners.

“I think I have outdone myself. It was very challenging when I first lost my eyesight at the age of 12. I had to work very hard from the time I started University. However, my career developed because not being able to see motivated me to work even harder. I wanted to show the world and myself that I could do it, to continue with my career and do the PhD concurrently,” she said.

Dr Sukhraj-Ely started on the Howard College campus in 1996 in the School of Social Sciences, majoring in Political Science and Legal Studies. From 1999 to 2000 she studied towards an LLB degree on the same campus. She received two Dean’s Commendations and

was awarded membership of the International Honours Golden Key Society for outstanding academic performance. In 2002 she obtained a Masters in Political Science *cum laude*.

“The improvement of my results over the years show that the University gradually changed in the way it was responding to the academic needs of visually impaired students.”

In July 2002, Dr Sukhraj-Ely served pupilage and in December that year passed the National Bar Exams for Advocates which secured her the Pius Langa Scholarship. In January 2003 she opened her own practice at the Durban Bar.

Her proud mother, Mrs Rosheila Sukhraj said: “... she went through many trials and tribulations ... When she went to University, I actually sat with her in the first week of lectures to make sure that she was familiar with the environment. We were very dedicated to her as parents.”

Dr Sukhraj-Ely met the love of her life Adam Ely in 2004 and married him in January 2007.

“I could never have obtained my PhD without his unyielding support and the abundance of assistance he gave me with reading, editing and conducting research in the field,” she said.

Her supervisor Professor Raphael De Kadt was a model supervisor she said, who went the extra mile to accommodate the limitations caused by her disability.

- Thembeke Dlungwane

Raising deaf children



Picture: Anand Govender

The Vice-Chancellor Professor M Makgoba capping Dr Vijjalakshmi John.

DR VIJIALAKSHMI John’s thesis was titled, *An ecosystemic perspective on the raising of deaf children by hearing parents: A mixed methods study*. Dr John is a lecturer in the ECD/Foundation Phase Discipline in the School of Education Studies in the Faculty of Education. The study was supervised by Professor N de Lange.

During the period 1998 to 2002 Dr John lectured to deaf teacher-trainees at the then Springfield College of Education. It was at that time that she developed an interest in conducting research in this field.

Dr John’s thesis is based on an investigation of the experiences of hearing parents raising deaf children. Deafness is one of the most common types of disability in South Africa with 90 percent of deaf children being born to hearing parents, many of whom are unprepared for the consequences of deafness.

The key findings are that although parenting experiences differ according to unique circumstances in the family, school and community, there are several commonalities. These include issues associated with the diagnosis of deafness, communication with the deaf child, financial burden, stigmatisation from the general public, strained interpersonal relationships, concern about the future of the deaf child, as well as lack of opportunities for tertiary education and limited employment opportunities for deaf persons.

Despite the resilience of hearing parents raising deaf children, there is a need for both formal support from professionals in the community, as well as informal support from family, friends and community members, and the need for a central location to access information about deafness and related matters. Recommendations are made to address these issues with a view to facilitating the emotional well-being of hearing parents raising deaf children, and consequently improving the quality of life of the deaf child and the family.

- Thembeke Dlungwane

Music maestro

THE compilation of *Photophonics* – a portfolio of music created by a UKZN Masters of Arts in Music Composition graduate, adds a new dimension to music composition in the classical genre.

Ms Fiona Tozer’s innovative work titled: *Photophonics: A Collection of Compositions for a Variety of Ensembles and Musical Media based on a Selection of African Landscape Photographs* by Meryl Riley placed her among the *cum laude* graduates.

While considering ideas for portfolio concepts four years ago she was drawn to Meryl Riley’s photographs and felt their content could be re-expressed through music.

Her research dissertation was presented in the form of a portfolio

of 11 classical compositions, each capturing a different aspect of visual art in the photographs.

She hopes to inspire more women to explore composition within classical music.

“The number of active women composers in the classical music field in South Africa can actually be counted on the fingers of one hand... It would be nice if I was setting a bit of an example and paving the way for other women composers to follow,” said Ms Tozer.

Her entry into the world of music began in her teenage years after the purchase of a guitar, playing for personal satisfaction and never contemplating music as a career option. However, she became an

accomplished folk musician and performed at folk clubs around the world for many years before feeling the need to acquire further knowledge to develop her skills as a composer.

Responding to achieving her degree *cum laude*, Ms Tozer said: “When you go back to studying later in life, you are more focused because you know exactly why you are there. Of course I’m pleased with the results, but am even more pleased with the knowledge I have acquired in the process.”

Professor Akuno, the Head of the School of Music said: “It is encouraging and worth celebrating the achievement recorded by Ms Tozer, not just in terms of completing a composition degree, but because of the level of attainment.



Picture: Anand Govender

Convocation Executive Member, Mr André Young robes Ms Fiona Tozer.

Ms Tozer’s commitment has been evident in her participation in professional activities. She has written music for some of the performances held here on campus, and the master’s success is a reflection of her diligence, talent, and determination.”

- Neesha Maharaj

Doctorates for staff members

Two staff members at the School of Pharmacy and Pharmacology were conferred with their Doctorates in Pharmaceutical Sciences at the Faculty of Health Sciences graduation on 24 April.

Dr Usha Govinden's research focused on Beta-lactamase mediated resistance (enzymes that

neutralize antibiotic molecules) in *Salmonella* species at a tertiary hospital in KwaZulu-Natal.

Dr Chunderika Mocktar's thesis entitled: *Beta-lactamase Mediated Resistance in Escherichia coli isolated in State Hospitals in KwaZulu-Natal*, investigated antibiotic resistance in one of the most common pathogens causing

urinary tract infections and a pathogen traditionally susceptible to all beta-lactam antibiotics.

Dean of the Faculty of Health Sciences Professor Sabiha Essack said Drs Govinden and Mocktar have made invaluable contributions to South African healthcare contexts in antibiotic resistance and recommendations for evidence-based treatment options for bacterial infections.

"The quality of research conducted by both candidates was unequivocally commended by all examiners but particularly by the international examiners. As staff members they have mastered cutting edge molecular biology techniques and are indeed excellent role models," she said.

- Neesha Maharaj



Dr Chunderika Mocktar.



Dr Usha Govinden.

Unique research

A SENIOR Tutor in the Discipline of Optometry Ms Pirindhavellie Govender received her Masters in Optometry for her research into eye diseases among HIV and AIDS patients in KwaZulu-Natal. Very little research on ocular manifestations among HIV and AIDS patients has been carried out in South Africa.



Picture: Anand Govender

Ms Pirindhavellie Govender.

Govender who had to keep up with the challenges of a full time job and the demands of clinical research.

"Clinical research, especially at a hospital, is demanding since the researcher is dependent on the assistance of hospital staff. The past three years involved many early morning starts and late nights," said Ms Govender who has worked at UKZN for the past 12 years.

"Graduating gives me a great sense of achievement. It is the culmination of hard work and the support of many people. It is a milestone that will enable my progress as an academic. And I'm now able to apply for promotion," she added.

Ms Govender who enjoys the dynamic academic environment she works in plans on pursuing a PhD in Optometry.

- Neesha Maharaj

Sixty four HIV positive patients with CD4 counts of less than 200 from a Durban hospital volunteered to participate in the research aimed at ascertaining the extent of eye disease among this category of patients. The research took into account the influences of anti-retroviral (ARV) drugs in the development of HIV and AIDS related ocular diseases.

Research findings suggested that 14 percent of the sample group had ocular manifestations. It was discovered that approximately 13 percent of subjects on ARV drugs presented with ocular manifestations compared to only 10 percent among those who were not on the drugs.

Ms Govender attributes the lower rate of ocular infections among the sample of patients to the exclusion of "individuals with systemic disease and opportunistic infections".

Accomplishing her Master's degree was a balancing act for Ms

Taking up life's challenges



Picture: Vicky Crookes

Dr Tertia Erasmus in her laboratory.

flowers has the potential to transform the way in which plant breeders and researchers across the world analyse crops and seeds.

Under the expert guidance of Professor Mark Laing, Head of the African Centre for Crop Improvement, Dr Erasmus compared tests based on DNA, the preferred means of scientific research, with those based on proteins which researchers have shied away from due to a lack of technology. Although the DNA analysis provided greater precision, the protein analysis was faster and cheaper. Overall, the study revealed a clear view of how to use both tools to achieve a more powerful result than if used independently.

Dr Erasmus, who credits Professor Laing as being crucial to the success of her research, says that her findings have "opened up the door for the seed industry to use cheaper and quicker technology for achieving the same results". In her study she has included a proposal to an international governing body for plant protection and breeders' rights recommending the use of proteins as initial screening and fingerprinting for the registration of new plants and breeder seed.

The completion of her PhD will allow Dr Erasmus the time and energy to immerse herself in developing her growing business, a state-of-the-art Proteios International BV laboratory based in Ashburton, outside Pietermaritzburg.

- Vicky Crookes

A DETERMINED resolve and a philosophy that life is full of challenges, not problems, have stood Dr Tertia Erasmus in good stead. November 2008 saw Tertia launch a new business venture and on 18 April she graduated with a Doctor of Philosophy in Plant Pathology.

Graduation marked the culmination of an intense, yet fulfilling three-year period of juggling research, work and family responsibilities. Looking at protein and DNA as diagnostic tools for determining genetic diversity, Dr Erasmus' research on sun-

Engineering achiever

WHEN top UKZN computer engineering student Mr Isak du Preez received ten distinctions in his matric in 2004 many expected a lot from him.

It is not surprising, therefore, that the former Domino Servite High School learner from Kwasizabantu Mission graduated in with his BSc (Computer Engineering) *summa cum laude*.

He attributes his achievements to God, without whom, he says, he would be a failure.

"I am very thankful to my mother for all her love and sacrifices she has made to bring me and my two sisters up in the best possible way. I also thank the community at Kwasizabantu (particularly Rev Erlo Stegen) for their continuous support. The highly capable and dedicated staff members at Domino Servite School and later at the School of Electrical, Electronic and Computer Engineering at UKZN were an inspiration throughout my schooling and undergraduate career," he said.

Mr du Preez grew up in Kwasizabantu mission close to Kranskop in the KwaZulu-Natal Midlands. His mother Anneli du Preez is a teacher at his former school.

The 22-year old is no stranger to accolades. Last year he was named the best final year student specialising in Control Systems at UKZN, and also received awards for the best computer engineering design project and the best computer engineering student at the School of Electrical, Electronic and Computer Engineering.

In 2004 he represented South Africa at the Intel International Science and Engineering Fair in the USA.

"I have been fascinated by electronics from a very young age," he said. He has just started his own electronic design and research company called Optolyte.

- Sabelo Nyuswa

Research tackles health hazard

Arsenic in groundwater creates serious health problems for millions of people throughout the world. A semi-metal that occurs naturally in the earth's crust, arsenic is a carcinogen which causes many cancers.

Mr Daniel Teclu, who graduated with his Doctor of Philosophy Degree on 18 April, researched methods aimed at detoxifying arsenic contaminated water. He came up with an efficient and cost effective process for making

arsenic contaminated water safe for drinking. Existing methods tend to be expensive and highly technical which make them unsuitable for use in rural areas in developing countries where the problem is most prevalent.

The strength of Mr Teclu's research lies in his multi-disciplinary approach to the problem. He bravely applied microbiological and chemical strategies to remediate contaminated water. It was a daunting challenge as arsenic speciation considerably compli-

cates both approaches. However, he succeeded in converting arsenite (AsIII) to arsenate (AsV) via a chemical process which then enabled the micro-organisms to remove the latter. The end result was the removal of the arsenic species to below the World Health Organisation (WHO)'s established maximum contamination limits.

Mr Teclu's academic journey at UKZN has been an arduous one that started in 2002 when he arrived from his native country of Eritrea to enrol in a Masters degree. He was faced with a new country, a foreign culture and a language in which he was less than proficient. However, an intensive English language course offered by the University has stood him in good stead and he has, over time, adapted to the cultural differences. His successful presentation of his research at several local and international conferences is testimony to his diligence and perseverance. Mr Teclu acknowledges his supervisor, Professor Mike Wallis, for his tremendous support while conducting his PhD research.

For Mr Teclu, graduation was a time for celebration and reflection on his past achievements. Although his family, whom he has seen only once since 2002, could not attend his graduation, he was joined by two other UKZN Eritrean students who graduated at the same ceremony.

- Vicky Crookes



Pictured at his graduation is Dr Daniel Teclu (centre) and his supervisors (left) Professor Mark Laing and (right) Professor Mike Wallis.

Picture: Alistair Nixon

Human Nutrition student excels



Picture: Anand Govender

Miss Sumaya Ismail Sooliman.

FOLLOWING in her father's footsteps, Founder of the Gift of Givers Dr Imtiaz Sooliman, 23-year-old- Miss Sumaya Ismail Sooliman has a natural passion for people and for helping those less fortunate than herself.

Miss Sooliman, who graduated with a Bachelor of Science in Human Nutrition, has also been awarded the Valley Trust Nutrition Award for being the most outstanding final year BSc Human Nutrition student.

Miss Sooliman, who changed her choice of degree three times before pursuing Human Nutrition, said she was extremely excited to be graduating.

"I am extremely happy; I wouldn't change it for anything else," she said. "My father advised me that nutrition is the way to go as this is a rapidly advancing field and since then I have never looked back. People are my passion and I want to help people and see results. Most problems in the world are caused by poor diet. A Prophetic saying that has truly inspired me is: 'The stomach is the home of disease and diet is the cure'," said Miss Sooliman.

She is now furthering her studies in dietetics so that she can practise as both a nutritionist and a dietician. She will do a postgraduate diploma in dietetics next year and added that she was looking forward to her community service; especially in a hospital, where she would focus on the clinical dietetics aspect. She is also a member of the Golden Key International Honour Society, an academic-based international organisation that invites students who perform in the top 15 percent of their Faculty.

She said: "I enjoy working with members of society and helping fellow students. I tutored second year students in Dietetics and Human Nutrition last year. I also spent a lot of time at Sunlit Gardens, a children's home, for the past two years helping the children with their homework and tutoring them in subjects in which they experienced difficulty. I was also involved in a volunteer programme, an initiative of the UKZN psychology department where we spent an hour a week at Grey's Hospital playing with the sick children."

She added that she attributes her success to her family who has been extremely supportive of her choices. "My father is extremely proud and helps me a lot. My family is excited; we almost thought this day would never come."

The Sooliman family places great emphasis on education with five members of the family linked to UKZN. Dr Sooliman is a graduate of the Nelson R Mandela School of Medicine; Mrs Zohra Sooliman is also a graduate of UKZN with a Bachelor of Social Science and is now furthering her studies in Psychology and Islamic Law. Miss Sooliman's brother, Mr Muhammed Rayhaan is doing his final year in Computer Engineering at Howard College and her sister Saffiya is doing her second year in Sports Science at Westville campus. In keeping with the family tradition, her sister who is currently in matric hopes to study medicine at the Nelson R Mandela School of Medicine.

- Xoliswa Zulu

Student dedicates *cum laude* degree to his mom

MR SCELO Makhathini, who graduated *cum laude* with a Bachelor of Commerce Degree in the Faculty of Management Studies, has dedicated his success to his late mother.

Mr Makhathini of KwaNdengezi Township said: "My mother was an inspiration to me because of the trials and tribulations she went through. She always encouraged me to make education my number one priority. It is a great pity that she never got the chance to share this moment with me."



Mr Scelo Makhathini.

Picture: Anand Govender

In congratulating Mr Makhathini, Professor Fikile Mazibuko, Deputy Vice-Chancellor and Head of the College of Humanities, said: "As an academic and a parent I am excited about Scelo's achievements. We hope that with his skills and competence he will contribute back to the University."

Mr Makhathini, currently studying for a Post-Graduate Diploma in Accounting, received three Dean's Commendations and got 19 distinctions during studies for his Bachelor of Commerce Degree.

The former Golden Key Member has received numerous bursaries and scholarships including the Cecil Renaud Bursary, Barlow World Bursary and the South African Institute of Chartered Accountants Bursary.

"Hard work and being consistent at all times has helped me achieve." He advises fellow students to make their studies interesting.

His father, Mr Simon Makhathini was overjoyed with his son's performance. "In my family's generation, my son is the very first one to graduate *cum laude*. I am extremely proud of my boy."

- Thembeke Dlungwane

Good things come in pairs Age is no barrier

Twins, Dina and Peter Dawoud (22) graduated *summa cum laude* with Honours in Statistics and Computer Engineering respectively.

Since registering at the University, they have received the Dean's Commendation in their respective courses every semester. Both are currently pursuing their Masters Degrees.

Dina said: "The experience has been amazing and the people have been great. It has been challenging, but you get so much help from the lecturers. One can tell that a lot of money has been invested in making the course well-structured. It has been a good experience and I have enjoyed every aspect of it. There have been stumbling blocks along the way, but I got through it all."

Dina added that while in school, she was unsure of the career path she wanted to pursue but when one of her teachers suggested that she pursue Actuarial Science, she never looked back.

Her brother has known since an early age that he wanted to pursue



Dina and Peter Dawoud.

Picture: Xoliswa Zulu

Computer Engineering. He has always enjoyed working with computers.

He said: "It has been hard and absolutely insane, but ever since I was young I've always enjoyed working with computers and Computer Engineering allows you to think and solve problems."

He added that before pursuing his PhD, he would like to go into industry and get the experience he needs.

Dina would like to become an academic once she completes her PhD. She would also like to concentrate more on Statistics in the application of Health Sciences.

Thrilled father Professor David Dawoud said: "We are very proud and happy with them ... I am encouraging them to continue in the academic life."

- Xoliswa Zulu

SEVENTY-three-year-old, Ms Valerie Leigh who graduated with a PhD in Art History on 17 April attributes her success to a passion for the arts, the help of many friends and trust in God.



Ms Valerie Leigh.

Picture: Anand Govender

Ms Leigh undertook five years of research into the art of South African sculptor, Andries Botha. Her dissertation titled: *Andries Botha: Creativity in a Context of Change* traces the artist's portrayal of social change in South Africa through the unique sculptures he has created. Ms Leigh viewed Botha's use of art in addressing the problems of the disadvantaged in South Africa, his understanding of the human condition and politics, as artistic creativity that warranted further research. She hopes her research would be an "encouragement" to others who study art.

"We are given particular gifts and opportunities (by God) to use to the best of our ability to benefit and enrich society. I have this responsibility to the gift of art that I've been given, for the good of society. To me art is beauty and through creativity the lives of even the most wretched can be enriched," said Ms Leigh.

Ms Leigh has spent more than 42 years contributing to artistic

development while working as a curator for the Tatham Art Gallery in Pietermaritzburg, the South African National Gallery in Cape Town and Arts Co-ordinator for the Provincial Museum Service in KwaZulu-Natal.

She studied at the Montreal Museum of Arts in Canada under the tutorship of Arthur Lismer at the age of 22 and later at both the Ecole Des Beaux Arts and Lhote Atelier in Paris after obtaining her Bachelor of Arts degree at the former University of Natal in 1957.

Her advice to students is to enter a field of study they love and work hard to succeed.

- Neesha Maharaj

Nurturing critical thinkers

HER teaching career spanning 19 years has been marked by innovative teaching methods. This extended to Ms Angela Stott's research on teaching science, for which she received a PhD in Science Education on 21 April.

Ms Stott's thesis, *Promoting Critical Thinking in School Physical Science* introduces an instructional model she calls "The Ladder Approach" to teaching science in the classroom, a method she believes encourages critical thinking among learners. Her three year research project involved some 60 learners from the Domino Servite School in the Kwasibabantu

Mission Station near Kranskop where Ms Stott teaches.

The current Outcomes Based Education curriculum, which supports critical thinking, prompted Ms Stott's study. She hopes it will assist teachers in their teaching practice.

Many learners who participated in the study showed initial resistance to the tasks and teaching approach used to promote critical thinking. However, they adapted to the change in teaching methodology over time.

Ms Stott said her model was not a "quick fix" solution to transform

learners into critical thinkers, as the process involves long-term effort and perseverance. However national critical thinking tests undertaken by this cohort of learners suggested that they were more critical in their thinking than most South African student teachers by the end of the research period. "It takes time and patience. However, there was clear evidence that their thinking and interest in Physical Science improved," said Ms Stott.

Information gathering and analysing processes proved a mammoth task for Ms Stott who said she had collected data almost every school day for the past three years.

In response to her latest academic achievement, Ms Stott said: "I'm glad to have accomplished my PhD in teaching. It was tough, but I always enjoyed research. If you want to improve your teaching practice, rigorous research is needed. It has helped me become a better teacher."

Ms Stott, who had aspirations to be a teacher since her childhood years, advised other science educators not to see teaching as the job of imparting "boring knowledge" to learners, but instead, they should try to teach in a way that challenges and excites learners to think.

- Neesha Maharaj



Ms Angela Stott.

Picture: Anand Govender

Triumph in adversity

MR KHATHUTHSHELO Percy Mashige, Head of UKZN's Department of Optometry, graduated with a Masters Degree in Optometry.

Mr Mashige, formerly of the Limpopo Province, joined the then University of Durban-Westville in 1993 as an Optometry student having graduated with a BSc degree from the University of the Witwatersrand.

On completion of his degree, he was appointed as a clinical resident in the Department during which time he obtained a Certificate of Advanced Studies in Ocular Diseases and Pharmaceutical Applications from the New England College of Optometry.

In 2000, Mr Mashige was appointed as Associate Lecturer and in 2008 as Head of the Department of Optometry.

In 2003, whilst conducting field research, Mr Mashige was seriously injured in a tragic motor vehicle accident which left him a quadriplegic. Through his determination and the support of colleagues, family and friends, he was able to come to terms with many challenges, returning to the Department of Optometry in 2005.

Since joining the Department as an academic, Mr Mashige has embarked on various projects. For his Masters Degree he conducted an investigation into practice trends of optometrists in the private sector in KwaZulu-Natal.

Mr Mashige has enrolled for a PhD in Optometry and is determined to attain his qualification within three years. His topic is: 'The Economic Analysis of the Blind in South Africa.'

- MaryAnn Francis



Mr Percy Mashige.

Picture: Anand Govender

Breaking new ground

The Faculty of Health Sciences accepted a new dissertation format for the first time in awarding a Masters of Medical Science in Medical Biochemistry degree to Mr Leshern Karamchand. He received his degree *cum laude* for his research which investigated the toxicity of antiretroviral drugs taken by HIV positive patients. His dissertation was a presentation of a research paper published in a peer reviewed journal as opposed to the traditional format in which masters'

dissertations are submitted. His research paper titled: *Lymphocyte Mitochondrial Depolarisation and Apoptosis in HIV-1 infected HAART (Highly Active Antiretroviral Therapy) Patients* was published in the *Journal of Acquired Immune Deficiency Syndrome (JAIDS)* in August 2008.

Forty eight HIV positive patients attending the Family Health Clinic at the King Edward VIII Hospital in Durban participated in the study which investigated the toxic side

effects of the NNRTI (Non-Nucleoside Reverse Transcriptase Inhibitor) class of antiretroviral drugs on their lymphocytes. Through an investigation of 32 case studies of participants taking antiretroviral drugs compared to 16 who were not on the drugs, Mr Karamchand demonstrated that NNRTI drugs induced lymphocyte apoptosis (programmed cell death) *in vivo*.

Professor Anil Chuturgoon, Head of the Discipline of Medical Biochemistry said he was pleased that his discipline was the first within the Faculty of Health Sciences to have a Master's student graduate by submission of published scientific articles.

"The traditional thesis format should be actively discouraged as many theses lie on shelves without being published. I commend the University for the innovation which becomes a 'win-win' situation for both the students and the Discipline."

Mr Karamchand attributed his success to a supportive family and the advice of his supervisors, Professor Anil Chuturgoon and Dr Halima Dawood at the Discipline of Medical Biochemistry and Department of Medicine respectively.

As a recipient of a Fulbright Scholarship, Mr Karamchand will pursue his PhD in Nano Biotechnology at an American university in August.

- Neesha Maharaj



Mr Leshern Karamchand.

Picture: Anand Govender

Quantum boffin

MISS Humairah Bassa graduated with a Bachelor of Science (Applied Mathematics and Physics) *summa cum laude* on 20 April.

"The feeling is great even though I was just doing my work and not expecting anything like this. I want to thank my family for the exceptional support they have given me; it's really awesome," she said.

The former Crescent Girls' High School learner, who received seven distinctions in matric, is currently pursuing her honours degree in physics specialising in quantum computing.

A quantum computer is a device for computation that makes direct use of quantum mechanical phenomena to perform operations on data. It is expected to be exceptionally fast as compared with the classical computer that we have today.

"The reason why I decided to specialise in quantum computing is because it is a new and exciting field and experimentation is being undertaken world-wide. It will be amazing if we could be the ones to realise the first large-scale quantum computer," she said.

She attributes her academic success to a balanced lifestyle, hard work and prayer. "The balance is important and you must be able to prioritise your work. You must have fun as a young person but in a disciplined manner."



Miss Humairah Bassa.

Picture: Sabelo Nyuswa

The 20-year old second born in a family of four aspires to be a scientist and contribute to research. "I want to contribute to society through research. I will be happy if I can work in an academic environment where my research will be of great value," she said.

She believes there is a huge scope for physics in South Africa.

"There is a shortage of women in this field so I believe that as a woman I have a good chance of making it big in the industry. Also there are a lot of opportunities in South Africa today, especially with recent government investment in scientific developments."

Her father, Mr Ahmed Farouk Bassa, is a lecturer within the School of Chemical Engineering at the Howard College campus.

- Sabelo Nyuswa

Taking on the house fly



Dr Lizzy Mwamburi.

Picture: Xoliswa Zulu

THE nuisance caused by the common house fly may soon be a thing of the past, especially in the poultry industry.

Apart from being vectors of more than 60 human and animal diseases, fly problems have resulted in lawsuits in several instances and in severe legal limitations being placed upon poultry producers. A UKZN PhD student sought to investigate how to take the edge off the problem.

Dr Lizzy Mwamburi, from the Discipline of Plant Pathology, sought to develop environmentally friendly control measures against house flies, using insecticidal fungi and bacteria.

She said they fed chickens with bacterial spores. The bacterium does not affect the chickens and is excreted with the chicken waste. The fly larvae feed on the manure and when they eat this bacterium, it kills them. Adult flies that come in from other sites are killed using a fungal spore formulation which is sprayed in the poultry houses.

"For some unknown reason, male flies are more attracted to infected female flies than non-infected ones. This is an advantage because they transfer the fungal spores to non-infected flies during mating, therefore killing a large population of adult flies," said Dr Mwamburi.

Dr Mwamburi said she hoped that her research could help solve many other pest-related problems in the agricultural industry, not only in South Africa, but in her home country Kenya, where agriculture is the main source of income.

- Xoliswa Zulu

PHD in Remote Sensing

A PASSION for Geography prompted Dr Riyad Ismail, to undertake his PhD in Remote Sensing.

His research focused on *Sirex noctilio*, a forest pest that is known to destroy commercial pine forests in KwaZulu-Natal.

His thesis advocates the development of techniques based on remote sensing technology to accurately detect and map *Sirex noctilio* infestations. Remote sensing is generally defined as the small or large-scale acquisition of information of an object, area or phenomenon. In practice, remotely sensed data is acquired through a variety of field, airborne or spaceborne sensors.

"This is one of the important days in my life," said Dr Ismail. "I have been working diligently on my PhD for the last three years and I am excited that the research is being implemented on an operational basis by forestry companies like Sappi in South Africa."

Dr Ismail obtained his Masters degree *cum laude* in 2001.

- Sabelo Nyuswa



Dr Riyad Ismail.

Picture: Anand Govender

Committed educator

Mr Nicholas Spaul was the only student to graduate *cum laude* for the Bachelor of Business Science Economics.

Mr Spaul is a lecturer in the School of Economics. "I really enjoy teaching people and would love to get involved in education policy in

South Africa one day. I believe that education is the lynchpin to sustainable development and is essential for South Africa to progress both economically and socially," he said.

In May, Mr Spaul together with Mr Rowan Lussi a final-year Business Science student in Finance will

participate in a prestigious St Gallen symposium in Switzerland. The pair entered a worldwide essay competition, the St Gallen Wings of Excellence Award and the authors of the top 200 essays are invited to attend the symposium.

The theme for 2009 is "Revival of Political and Economic Boundaries" and participants include Finance Ministers, world leaders including Kofi Annan in 2008 and student leaders. The St. Gallen Symposium is the world's leading platform for dialogue on key issues in management, the entrepreneurial environment and the interfaces between business, politics and civil society. The aim of the St. Gallen Symposium is to stimulate thought and action for the sustained success of companies and societies in a globalised world.

- Thembeke Dlungwane



Dr Raymond Ackerman and Mr Nicholas Spaul.

Nursing PhD

RESEARCH into the provision of cultural care by health care professionals to AmaXhosa men who undergo traditional circumcision earned Mr Jafta Ntsaba a PhD in Nursing.

Mr Ntsaba who in the past was responsible for implementing programmes aimed at curbing complications related to circumcisions in Sterkspruit, Eastern Cape, undertook this research due to the lack of guidelines for nurses in providing culturally acceptable care to AmaXhosa male initiates of traditional circumcision. The research intended to provide clarity on appropriate cultural care for hospitalised initiates.

His suggests the need to "preserve what is good for the custom, to negotiate what is harmful with the hospitalised initiates, educate them on what is good and to restructure some of the processes carried out in hospitals."

Mr Ntsaba said a challenge to female nurses was that traditionally in Xhosa culture it was unacceptable for women to provide cultural care to initiates.

Describing his latest academic achievement as "exceptional", he added that he was proud of his educational accomplishment as he was responsible for financing his education since grade seven.



Mr Jafta Ntsaba.

"I think I am a role model to other nurses that the sky is the limit," he said. Mr Ntsaba who currently works at the Canberra Hospital's Eye Clinic in Australia, plans to return to South African and continue research into Transcultural Nursing.

- Neesha Maharaj

Go getter

BLIND graduate Mr Luck Shange believes that education is critical to break the chains of poverty.

Mr Shange (27), who hails from Richards Bay, graduated with a Postgraduate Diploma in Leadership and Management in the Faculty of Management Studies. He is currently pursuing a Masters degree in Social Policy on the Howard College campus.

Mr Shange says that his motivation to further his studies emanates from his background. "I am the only one at home who broke through matric and received tertiary education. This reason alone has really inspired me to work hard and study further."

He lost his sight at the age of 19. "I went to bed and when I woke up

the next day my eyesight was gone. It is still a mystery to me up to this day as to what happened."

Mr Shange is employed by the Department of Education in Polokwane as a Training Officer in the Human Resources Development Unit. "We live in a world of go getters and despite my disability, I want to educate myself so that I have a prosperous career. I want to live a rewarding life," he said.

Mr Shange has lived a very active life. He was the President of Different Able Student Association from 2004 to 2007. He has a strong passion for body building and has won several titles.

He highlighted a number of challenges facing disabled students at



Mr Lucky Shange.

UKZN, including infrastructure, adequate resources for disabled students and the scheduling of tests and examinations.

"The University should make it a priority to cater for disabled students. It is very difficult to move around at some of the campuses due to the infrastructural design of the campus," he said.

- Thembeke Dlungwane

IT fundi

THE first person in his family to attend university, Mr Mfanafuthi Wonderboy Mlambo graduated with a *summa cum laude* in Computer Science and Information Technology.

"I had to explain to my parents what is the meaning of *summa cum laude* because none of them ... have ever been to a university. I have made history to the whole family and everyone is so proud of me," he said.

Deputy Vice-Chancellor and Head of the College of Agriculture, Engineering and Science Professor Pete Zacharias said: "We often use these Latin terms without really knowing what they mean. Mfanafuthi truly deserves to receive his degree 'with highest praise'. The lesson here is he did well in both computer science and IT but really excelled in all subjects with maths. This is what has given him success and all school learners need to work hard at their maths if they really want to succeed in the technologies."

The former Reunion Secondary learner in iSipingo south of Durban matriculated in 2005 with distinction and says Information Technology has always been his first choice. He attributes his achievements to his supportive family.

Growing up in uMlazi township the second-born in a family of four recalls his family's hardship: "My father is the only one who is looking after the family because my mother is unemployed ... I was forced to do odd jobs at times like being a waiter in restaurants to get the pocket money to sustain myself at the university ... But I am happy



Mr Mfanafuthi Wonderboy Mlambo.

that through that struggle I have achieved this," he said.

After showing his potential, Telkom offered him sponsorship.

"It was a huge relief I must say. This enabled me to get proper accommodation and other necessities. It also removed the load from my father," he said.

His mood changes when he speaks about the environment he comes from and the fact that some of his peers are languishing in jail or are deeply involved in crime.

"I am thankful to the Almighty that I decided to choose education. Many of my friends that I went to school with are in jail and some are heavy on drugs. In my area people look up to me that anything is possible regardless of the environment you come from," he says.

Mr Mlambo is doing his honours degree in Information Technology on the Westville campus. He is also a tutor and a demonstrator within the School of Information Systems and Technology.

- Sabelo Nyuswa



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