

Message from the Dean



Professor Deo Jaganyi.

FEEL IT! They are here: the first year students arrived in big numbers. For the first time since the merger the Faculty surpassed its enrolment target. To date the Faculty has registered a total of 5 435 students, 22% of these being postgraduates. As a Faculty we are three years ahead of our enrolment plan, and will certainly be meeting our DoHET target of 5 495 in the second semester through the registration of additional postgraduate students. The huge numbers of undergraduate students pose a challenge to all of us, but I believe and have faith that, together, we will be creative as usual in overcoming these challenges.

The crowning of our students at the two graduation ceremonies in April, both officiated by the Chancellor Dr Zweli Mkize, was a big success. We graduated a total of 970 students and remain a leading Faculty in the production of PhD graduates, having graduated 53 at the last graduation ceremony. For the first time we produced a Doctor of Science in Agriculture; congratulations to Professor Mike Savage. We also congratulate Professors Jamshid Moori and David Ward for being made Fellows of UKZN, and Dr Serban Proches who was awarded the 2009 Vice-Chancellor's Research Award. In addition, we netted one of the four Distinguished Teachers' Awards.

I am really excited about our Faculty. *The 2015 Science and Agriculture Agenda*, which is our blueprint, has been finalised and will be distributed to all staff. This document will guide us in achieving our mission over the next few years. Our Faculty is certainly contributing in a meaningful way towards the realisation of UKZN's dream of being "The Premier University of African Scholarship". *The 2015 Agenda* will enhance our participation in making it a reality.

To all the staff, thank you for your contributions towards building our Faculty and UKZN. All the best in semester two 2010.

Deo

Distinguished Teachers' Award for Dean

Professor Deo Jaganyi was one of four academics awarded with a Distinguished Teachers' Award at this year's graduation ceremonies. Besides being the Dean of one of the leading Faculties at UKZN and one of the most productive researchers at the Institution, Professor Jaganyi still finds time to teach undergraduate and post-graduate Chemistry students. His commitment to teaching is apparent in the careful and reflective planning of his modules and his ability to adapt his teaching methods to different levels. Most importantly, he is student-centred in his approach and always makes time in his busy schedule to mentor and assist students.



(left) Professor Deo Jaganyi at the graduation ceremony where he received his Distinguished Teachers' Award.

Top students take a bow

The best students in the Faculty of Science and Agriculture were honoured at the Faculty's annual Awards Ceremony held on the Pietermaritzburg campus on the eve of graduation. A total of 37 awards were presented to students who excelled in a variety of disciplines in 2009. Many of the prize winners were amongst the 1 037 Science and Agriculture students who had their degrees conferred at the UKZN graduation ceremonies.

Representatives from sponsor companies and past and present staff members handed over the prizes to the deserving students who attended the Awards Ceremony with their families. Many of the awards have a long history and have been presented by the Faculty for many years.

Summa cum laude graduate, Ms Daniella Egli, was the most dominant prize winner, claiming five awards for her academic achievements in the Biological Sciences. One of the most prestigious awards, the AR Saunders Medal for the Dux in the Agricultural and Dietetics programmes, went to Ms Ursula Wittig who graduated *cum laude* with a BSc Dietetics degree.

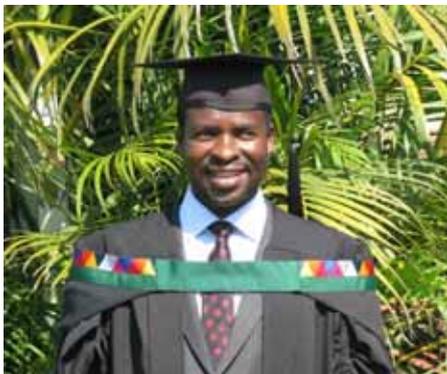


Ms Daniella Egli, pictured with Professor Deo Jaganyi, claimed five awards at the Faculty of Science and Agriculture Awards Ceremony.



Mr Tuki Maseatile, Director of the Valley Trust, presents Miss Maite Ramotebele with the Valley Trust Nutrition Award.

Juggling work and postgraduate studies



Mr Muvhango Rasalanavho.

Mr Muvhango Rasalanavho graduated with his MSc degree at the April graduation ceremonies. His dissertation was entitled *Application of Analytical Chemistry and Waste Minimisation Techniques in a Paint Drier Plant*. “I found the research project important in the sense that it relates to what I teach my students: Chemistry and application of Chemistry to solve problems pertaining to environmental issues,” said Mr Rasalanavho.

Despite difficulties such as: finding a postgraduate supervisor, gaining trust from the company while requesting information/data, collecting samples in the early hours of the morning (mostly at 2 am), as well as much needed financial support, Mr Rasalanavho said, “Everything always comes to an end as long as one hangs on and becomes dedicated even though there are obstacles on the way.” Mr Rasalanavho intends to register for a PhD in the near future.

Centre for Science Access (CSA) counsellors visit Australia

Student counsellors, Ms Shelley Barnsley and Ms Ntombekhaya Mtwentula, recently undertook an academic visit to Perth, visiting five universities in Western Australia. The purpose of their visit was to ascertain which models of service delivery relating to student counselling and student services at the Australian universities work, why they work, what challenges they face, how they have overcome these challenges, and which organisational contexts favour which model. In addition, they wanted to explore the role of student counselling in access programmes and how student counsellors can improve access, retention and throughput.

Ms Barnsley and Ms Mtwentula found that most of the students at the Australian universities are funded and do not have to

deal with the kinds of social issues that UKZN students face such as: food insecurity, poor living conditions, financial problems and HIV/AIDS. Ms Mtwentula said: “Despite the fact that we are dealing with a very different student population in a very different context in SA, we came away with some innovative ideas on how to improve our practice.” Ms Barnsley added: “Another particular useful idea is to have Connect Officers, who are the first point of call for students on any issue, and students are then referred to the appropriate student support service and follow up is made. These officers therefore do not provide the support themselves, but provide a bridge to the support.” She believes this idea has potential for development at UKZN.



Ms Shelley Barnsley.



Ms Ntombekhaya Mtwentula.

Problem-Based Learning Conference

Project and problem-based learning has become increasingly popular in Higher Education contexts. However, there are a broad range of contexts and diverse applications indicating that teaching and learning can take place without following traditional approaches. Three staff members from the CSA: Mr Muvhango Rasalanavho, Ms Kristy-Lyn Barry and Dr Naven Chetty attended the Project Orientated/ Problem-Based Learning Conference (PBL) held at Aalborg University in Denmark from 4 - 6 May. This conference was based on utilising “The Aalborg Model” which started at Aalborg University in 1974. Academics from around the world were invited to discuss visions, challenges, strategies and standards on problem-based learning.

Ms Barry said: “I got to interact with students and academics from various disciplines in education, science, engineering, social sciences and medical education.” The most important highlight of the conference was the presentation of the proposed standards for certification on how PBL should be implemented. Another highlight was the paper presented by Professor Sechaba Mahlomahalo from North West University. He talked about the similarities between the Aalborg PBL

Continued on page 4

model and South Africa's White Paper on Higher Education and focused on a learner-centered approach to education. Ms Barry found the presentation from Australia's Swinburne University of Technology on designing informal learning spaces within a space-constrained campus very enlightening. She found it applicable to UKZN with a diverse student population and space constraints.

Delegates were also involved in focus group discussions on PBL and its standards. They discovered how a PBL group work-approach could be introduced to access students from disadvantaged backgrounds as opposed to a layered approach (which is currently used) and one that encourages independent work. Ms Barry, said "This conference was important for me to attend as it broadened my knowledge base on different teaching methods and I could see what PBL is and how it is implemented in different contexts around the globe, not only in affluent first world universities".



(from left): Dr Naven Chetty, Ms Kristy-Lyn Barry, Mr Muvhango Rasalanavho.

Science And Technology Education Centre

Holiday workshop

The Science and Technology Education Centre, based on the Westville campus, held its first holiday workshop from 28 June to 2 July. Participants, who comprised mostly staff members' children, enjoyed a range of different activities each morning of the week. The first morning was dedicated to a workshop on volcanoes which involved a volcano science show

followed by a "build your own volcano" session. Next up was an exercise in building a bottle jet car, culminating in a bottle jet race. This was followed by a visit to the Electron Microscope Unit where the children were shown how to prepare biological samples for different types of microscopes. On the fourth morning, Professor Jeff Bindon from Mechanical

Engineering helped them build their own Hero Turbine and on the last day, the children enjoyed a secret message workshop. They learned how to reveal messages using an iron and grape juice and also decoded secret messages using the Vigenere and the PigPen cipher.



Workshop participants racing their bottle jets.



Children enjoying the volcano building workshop.



School of Agricultural Sciences and Agribusiness

Staff News

Professor Frederick Veldman was appointed in the discipline of Dietetics and Human Nutrition on 1 March. He holds the following degrees: BSc Chemistry & Human Physiology, BSc Honours, MSc, PhD (Northwest University, Potchefstroom), MSc Epidemiology (Columbia University, New York), and a Masters in Problem-Based Learning in Science, Mathematics and Engineering Education (University of Aalborg, Denmark). He was previously employed at the Central University of Technology in the Free State as an Associate Professor from 1997 to 2008. From 2002 to 2003, Professor Veldman was a fellow of the Fogarty International HIV/AIDS and Tuberculosis Training and Research Program at the Mailman School of Public Health, New York Presbyterian Hospital at Columbia University in New York City. Professor Veldman has received a number of prestigious awards and recently assisted UNICEF as an expert on a panel for the development of a national nutrition training programme for people living with HIV and AIDS, in collaboration with South Africa's national Department of Health. (2005-2006). He also served as the Provincial Chair of the SA HIV Clinician Society from 2004 to 2008. His research interests include infant nutrition, process competencies and teaching, as well as HIV and AIDS treatments focusing on drug and food interactions.



Professor Frederick Veldman.

Professor Michael Chimonyo joined the discipline of Animal & Poultry Science on 1 June. A graduate of the University of Zimbabwe (UZ), Professor Chimonyo completed his BSc Honours in Agriculture (Animal Science) in 1996, his MSc in 1998 and graduated with a PhD in 2005. From 1999 to 2003, he held the position of Research Fellow at the Department of Para-clinical Veterinary Studies, UZ. In July 2003 he was appointed as a lecturer in the same Department. In 2006, he was appointed as Associate Professor and Head of the Department of Livestock and Pasture Science at the University of Fort Hare. He remained in this position until he was promoted to Professor in 2010 when he decided to join UKZN.

Professor Chimonyo is committed to teaching excellence and is currently completing a post-graduate diploma in Higher Education and Training with the University of Fort Hare. His current interests include pig breeding and nutrition and livestock production at communal and commercial levels. He has worked extensively in the area of Nguni cattle research, covering aspects of their growth and carcass performance, adaptation to harsh environments, tolerance to ticks and nematodes and meat quality. He has established a prolific publication record in a short period, with more than 70 publications in peer-reviewed and internationally-recognised journals.

Professor Chimonyo has received a number of scholarships, awards and prestigious assignments over his academic career. He is currently a sub-editor for the *South African Journal of Animal Science* and a reviewer for numerous journals, such as *Meat Science*, *Animal Feed Science and Technology*, *Tropical Animal Health and Production*, *Small Ruminant Research* and *Livestock Science*. To-date, he has successfully supervised four PhD, 15 MSc and several Honours graduates.

The month of June was a landmark in terms of staff changes in the School. In addition to the appointment of Professor Chimonyo,

we also welcomed a new Lecturer in Plant Pathology. **Dr Kwasi Yobo** was appointed after Dr Pat Caldwell retired at the end of 2009. Originally from Ghana, Dr Yobo completed his university training on the Pietermaritzburg campus. He holds a BSc (Hons) (former University of Natal), MSc (Plant Pathology) (former University of Natal), and PhD from UKZN. His PhD, which was awarded in 2005, focused on "Biological control and plant growth promotion by selected Trichoderma and Bacillus isolates".

Dr Yobo has received recognition in the form of various scholarships, bursaries and awards, the most notable of these being the Award for Young Plant Pathologist from the Southern African Society for Plant Pathology for the years 2001 and 2003. He has published research articles in various peer-reviewed journals such as the *African Journal of Biotechnology*, the *Journal of Plant Nutrition* and the *South African Journal of Plant and Soil*. The School welcomes Dr Yobo as he brings valuable knowledge and expertise in biological control of diseases (greenhouses and crops), integrated plant disease control, use of pesticides/fungicides in plant disease control, storage and safety issues relating to agrochemical usage, epidemiology of plant diseases and applied biometry. Since achieving his PhD, Dr Yobo has been awarded a Postdoctoral Research Fellowship at UKZN.



Dr Kwasi Yobo.

Continued on page 6

Mrs Karen Caister has completed her Leadership and Equity Advancement Programme (LEAP) contract and was appointed as a lecturer in Agricultural Extension and Rural Resource Management. Mrs Caister holds a BSc (Dietetics), a Postgraduate Diploma in Missions and

another in Hospital Dietetics, a Masters in Agriculture (Food Security) and is currently working towards her PhD in Social Agronomy.

Mrs Nicola Tyler from Animal and Poultry Science has been appointed as a new

academic co-ordinator in the School. At the same time we have said goodbye to **Professor Sheryl Hendriks** who has joined the University of Pretoria and **Dr Marietjie van der Merwe** who has left our School to join the Faculty of Education in pursuit of her research passion.

Obituary for Professor Janusz Zwolinski



Professor Janusz Zwolinski.

Professor Janusz Zwolinski passed away on 26 May after a long illness. He was a valed member of the School of Agricultural Sciences and Agribusiness and his contributions will be missed.

Professor Zwolinski, Associate Professor in Forestry, received his professional qualification and early work experience (1971-1982) at the European School of Forestry. He arrived in South Africa in 1983, having completed his MSc in Krakow, Poland. He received his PhD from the University of Stellenbosch (1992) and a DSc from the Agricultural University of Krakow, Poland in 2008. This was accompanied by over 25 years of involvement in commercial forestry, green-field projects, technical management, postgraduate studies, research and academic engagements, mainly in South Africa, but also in the United States and Europe.

Professor Zwolinski started the forestry programme at UKZN, which by 2008 had produced 26 degrees, of which 16 were Masters and Doctorates. In addition, 142 undergraduates from the Faculty of Science and Agriculture elected to take various Forestry courses

Enhancing his professional expertise, Professor Zwolinski visited various forestry institutions (academic, research and commercial) in Africa, Australia, China, Canada, Europe, New Zealand as well as North and South America. He established collaborative agreements and professional contacts with leading institutions and specialists, particularly in the area of planted forests, commercial forestry and wood chain management.

Research and development projects conducted by Professor Zwolinski have been internationally recognised and have been of benefit to some of the largest international forestry companies. This work has been summarised in over 180 publications and industrial reports, and delivered in over 70 public presentations at conferences, workshops and radio programmes. His expertise and professional interests were broad and he remained persistent in promoting intensive timber production technologies for economic and environmental benefits.

Professor Zwolinski was dedicated to his students and was eager to instill in them an interest and passion for the field of forestry. He provided them with the motivation and resources to succeed, enabling them to make their own mark in the forestry discipline. His legacy and valuable contributions to forestry will remain for many years to come.

Convocation Awards 2010: Professor Robert Neil Pike

Professor Robert Pike who received his BSc Agriculture (Biochemistry) degree in 1987 and his PhD in 1991 from the former University of Natal was awarded the 2010

Convocation Award for Outstanding Contribution to Agriculture, Engineering and Science. Following postdoctoral fellowships at the University of Georgia,



Convocation President, Mr André Young; Nominator, Professor Theresa Coetzer; Premier of KwaZulu-Natal and UKZN Chancellor, Dr Zwelini Mkhize; Convocation awardee, Professor Rob Pike; President and Chair of Convocation, Mr Sandile Ngcobo and Executive Director of UKZN Corporate Relations, Ms Nomonde Mbadi.

USA and the University of Cambridge, UK he was recruited to the Department of Biochemistry and Molecular Biology at Monash University in Australia in 1997. Here he established his most prolific research group which works on serine proteases and their inhibitors, the serpins, proteinase activated receptors and their involvement in inflammation, as well as the initiating serine proteases of the complement system. In 2007 he was appointed Head of Monash University's Department of Biochemistry and Molecular Biology, the largest and most successful department of its kind in Australia.

Professor Pike has published 118 research papers and invited reviews in the top peer-reviewed journals in his field. He has also published five chapters in books and is the inventor on four patents. His work is regularly cited by other researchers in his field and he has an h-index (measures the scientific productivity and scientific impact of a scientist and is based on the distribution of citations received by a given researcher's publications) of 29. He has been the principal investigator on some of the largest research grants awarded in Australia and was the Chair of the International Proteolysis Society. Through his outstanding contribution Professor Pike is doing his *alma mater* proud by personifying the University's tradition of excellence. He was nominated for the award by Professor Theresa Coetzer who read the citation at the Convocation Awards dinner on 16 March.

Merck awards

The achievements of the best final-year students in the disciplines of Microbiology and Biochemistry at the Westville and Pietermaritzburg campuses were recognised in a special ceremony held on the Westville campus on 21 May. Merck-sponsored plaques as well as cash awards

New premises for Microbiology department

In its biggest event of this year, the School of Biochemistry, Genetics and Microbiology on the Westville campus hosted the official opening of the disciplines of Biochemistry and Microbiology in their new premises on 21 May. Guest speakers included: Deputy Vice-Chancellor and Head of College, Professor Rob Slotow; Dean of Science and Agriculture, Professor Deo Jaganyi and Deputy Vice-President of the National Research Foundation (NRF), Professor Gansen Pillay. Professor Slotow did the honours by cutting the ribbon which was followed by a guided tour of the top-class undergraduate and postgraduate research facilities of both disciplines. Students were on hand to



Ms Shantal Dorisamy, a Biochemistry Masters student in one of the new laboratories.

explain their research to the guests. The opening celebrated many years of planning that began pre-merger.

Continued on page 8

were presented to Ms Nontobeka Mvubu (Microbiology, Westville), Ms Liesl Hendry (Biochemistry, Westville), Ms Nongcebo Memela (Microbiology, Pietermaritzburg) and Ms Lauren Eyssen (Biochemistry, Pietermaritzburg). Congratulations to these talented students who are all currently pursuing Honours degrees.

The GV Quicke Book Prize, awarded to the best Biochemistry student at level 7 was shared by two students: Miss Kirsten Shelley Henstra and Miss Laurelle Anne Jackson.

The **Genetics Book Prize** for the best Honours student in Genetics was awarded to Miss Danielle Wingrove Tedder.



Merck awardees: (from left) Ms Liesl Hendry, Ms Nonobeko Mvubu and Ms Lauren Eyssen.

Open Day

Open Day exhibitions were staged on 8 and 15 May on the Pietermaritzburg and Westville campuses. These are important events on our annual calendar and, as always, terrific displays were presented on both campuses.

Staff News

Biochemistry Professor conferred a Knight of the Order of the Star of Italian Solidarity

Cavaliere dell'Ordine della Stella della Solidarietà Italiana, translated as Knight of the Order of the Star of Italian Solidarity, is the new official title of Emeritus Professor Mario Ariatti from UKZN's School of Biochemistry, Genetics and Microbiology. He was recently knighted by the Italian government for his work and dedication, over 35 years, to the discipline of Biochemistry on the Westville campus as well as his commitment and contribution to Italy.

Professor Ariatti, who has maintained strong links with his country of birth, received the award at the annual Italian Republic Day celebration on 2 June at the Durban Country Club. Dignitaries from local society and government and the consular corps were in attendance to share in the festivities.



The end of another successful open day at the SGBM stand in Pietermaritzburg.

Dr Evodia Setati leaving for greener pastures

Dr Evodia Setati, Lecturer in the discipline of Microbiology on the Westville campus left us at the end of February to take up a new position. She is currently a Senior Researcher at the Wine Biotechnology Institute, University of Stellenbosch. Dr Setati joined Microbiology in 2006 and

lectured both second and third-year Mycology modules as well as recombinant DNA Technology. Her research focused on exploring the potential of enzymes from extreme environments for application in biotechnology.



School of Biological and Conservation Sciences

Graduation 2010

The School congratulates all students, in particular our higher degree candidates, who were awarded their degrees at the April graduation ceremonies. A total of 12 PhD, 21 MSc, 28 BSc (Hons) and 44 BSc candidates, from the Westville and Pietermaritzburg centres, graduated at their respective ceremonies. Coinciding with the Pietermaritzburg ceremony was the Faculty's Awards Ceremony, where several top students were acknowledged for their academic achievements in 2009. Representing our School, *summa cum laude* graduate, Ms Daniella Egli, was the most noticeable prize winner and claimed five awards as a result of her impressive achievements. Also making headlines following the Pietermaritzburg ceremony was the "long walk to success" of Mr Desale Yosief Okubamichael, who walked and hitchhiked all the way from Eritrea, to complete his MSc in Botany at UKZN. Noteworthy from Westville was Alistair McCormick who received the award for the best PhD in Botany in South Africa from the South African Association of Botanists.

Staff news and achievements

- Congratulations to Professor Paula Watt and Ms Bulelwa Keke for their recent promotion to the level of Professor and Senior Tutor.
- At the Pietermaritzburg graduation ceremony, Professor Dave Ward was presented with the award of Fellow of the University of KwaZulu-Natal in recognition of his considerable contribution to research in the field of ecology and his successful mentoring and supervision of postgraduate students.
- At the 2010 Comrades Marathon, Professor Richard Beckett achieved his 20th medal for having completed this arduous race over two decades; a most noteworthy achievement.
- Professor Paula Watt was elected as a Faculty representative on the College Academic Affairs Board, while Mr Martin Hampton was elected as a representative for the Pietermaritzburg Support Staff on the Faculty Board.

Fun Events at Pietermaritzburg

The Administrative Staff at Pietermaritzburg continued their efforts to boost spirit amongst staff and students by successfully encouraging everyone to support "Football Fridays" and wear football jerseys in support of their favourite teams. Following an idea of Professor Steve Johnson, we recently hosted our second Staff versus Students Cricket Match, which adopts a 15-over format and has proven to be very popular. So far, the staff lead the series 2-0 and there are plans to make this a more regular (possibly monthly) event.



Avid support for "Football Friday" on the Pietermaritzburg campus.

University Open Days

The School made a substantial contribution to UKZN's annual Open Days which attracted more than 5 000 learners and their parents to the Pietermaritzburg campus on 8 May and the Westville campus on 15 May. Our displays, which are manned by enthusiastic postgraduate students, are normally attractive to the learners (even those with no particular interest in studying biological sciences) given their interesting and interactive content – this was again true this year.

Postgraduates provide academic support

Throughout the first semester, the School's Academic Support Programme and the First Year Experience Programme provided additional mentoring sessions and resources for augmented and first-year biology students on the Pietermaritzburg campus. Held mostly on weekends, these were attended by 80-150 biology students and were led by 15 senior students, mostly from SBCS, which included postdoctoral, PhD, MSc, Honours, and third-year students. Academic, support and administration staff of the School greatly facilitated this process by providing additional teaching and practical materials and arranging venues. It is indeed a healthy sign when senior students are prepared to give up their valuable time and participate in such initiatives.

Annual "Day of the Tree" ceremony



Celebrating the "Day of the Tree" at Westville.

Continuing a 24-year old tradition of celebrating the health of trees, this annual ceremony was recently held at the Westville campus. Inaugurated on the Howard College campus by former Chief Technician, Mr Darrell Smith, the move of the School to Westville necessitated the planting of a successor to the original tree, at Westville's new Biology Building in 2009. A pepper-bark tree (*Warburgia salutaris*) was planted in the presence of Mr Smith, who sadly passed away during 2010. Besides his considerable biological knowledge, Mr Smith was generally regarded as the "godfather" of scientific diving in KZN. Mr Derek Airey (of Sappi Saiccor, Umkomaas), a long-term diving associate of Mr Smith's, presented the invited address entitled: "Diving: pastime or sport?"

Project focuses on impact of biofuel feedstock production on water resources

UKZN's School of Bioresources Engineering and Environmental Hydrology (BEEH), in collaboration with the University of Pretoria and the Council for Scientific and Industrial Research (CSIR), was recently awarded a multi-million rand six-year research project, initiated by the Water Research Commission.

Titled: "Water use of cropping systems adapted to bioclimatic regions in South Africa and suitable for biofuel production," the project is jointly funded by the Water Research Commission and the Department of Agriculture, Forestry and Fisheries.

The production of biofuels uses water, particularly for the production of the feedstock to supply biodiesel and bioethanol plants. Competition for water between agriculture and other sectors, especially for urban needs, is intensifying and some South African catchments are already over-allocated and hence water stressed.

The research project will enhance the state of current knowledge regarding the potential for biofuel feedstock production in South Africa by: identifying potential growing areas for key biofuel feedstock in South Africa; quantifying, through both experimentation and modelling, the potential water requirements of feedstock production (and likely impacts on water resources); estimating yield potential in optimum and sub-optimum growing areas; and accounting for the possible threat from pests and diseases.

As part of this project, BEEH recently hosted a symposium and workshop in Pietermaritzburg focussed on the biophysical constraints and water use of potential biofuel feedstock in South Africa. The symposium featured presentations by local experts from UKZN, the University of Pretoria, the University of Cape Town and the CSIR. Two international experts,

Dr Winnie Gerbens-Leens and Professor Stefan Uhlenbrook from the University of Twente and the UNESCO-IHE Institute of Water Education, added value to the symposium through their presentations on the "Water Footprint" concept and on the gaps in knowledge regarding the water-use of biofuels.

Attended by a wide range of stakeholders, the symposium played a key role in knowledge dissemination by providing: an overview of state-of-the-art methodology and technology for estimating crop/tree water use; information on potential biofuel feedstock (e.g. sweet sorghum and cassava); knowledge on water-use of specific crops/trees (e.g. canola and jatropha) as well as highlighting various key research areas.

On behalf of the Water Research Commission, Project Manager, Dr Andrew Sanewe expressed his satisfaction with the workshop outcomes. Project Leader, Professor Graham Jewitt and Principal Investigator, Mr Richard Kunz, agreed that the workshop had provided the project team

with a strong endorsement for the project, as well as raising several issues which they can include in their work programme.



Pictured at the Faculty of Science and Agriculture annual Awards Ceremony are Professor Roland Schulze and Mr Simphiwe Ngcobo, the recipient of the Roland Schulze Award for the Top Third Year Hydrology student.



Participants and guest speakers at the symposium.



School of Chemistry

Two of our staff members graduated at the April graduation ceremony:

- Dr Desigan Reddy (PhD)
- Mr Muvhango Rasalanavho (MSc)

Ms Kristy-Lyn Barry and Mr Muvhango Rasalanavho attended the conference “Visions, Challenges and Strategies for Problem-Based Learning” at Aalborg University, Denmark from 4- 6 May.

Professor Igor Nikolaenko gave a lecture entitled “Copper (II) complexes of the oxime- and amide ligands: odd and even number defined stability” at the International Symposium on Metal Complexes in Bilbao, Spain from 7-11 June.

One of our third-year chemistry students, Ms Vezekile Zungu, is currently spending two months as an exchange student at James Madison University, Virginia, USA, with Professor Brian Augustine, who visited the School of Chemistry in Pietermaritzburg as a Fulbright Scholar in 2009.



Ms Vezekile Zungu and Professor Brian Augustine in the laboratory at James Madison University.

The annual prize-giving function for Pietermaritzburg Chemistry was held on 14 April. The following students received prizes:

- Best beginner in 1st year Chemistry: Ms Aimee Addington
- Perkin-Elmer prize for top 1st year student continuing with Chemistry: Ms Rachelle de Charmoy
- Sasol medal for top 2nd year student: Mr Nkosinathi Dlamini
- Merck Prize for top 3rd year student: Mr Antony Hall

- Umgeni Water Prize for top 3rd year student in Chemical Technology: Mr T J Theron
- Sasol medal for top Honours student: Ms Pegah Khalili



Chemistry prize winners.

Dr Desigan Reddy and his team of post-graduate students represented Chemistry at Open Day on the Pietermaritzburg campus where they organised a chemistry show.

In February, the School of Chemistry in Pietermaritzburg, in collaboration with the South African Chemical Institute, held a chemistry magic show for schools.

Staff on the Pietermaritzburg campus were in full support of Bafana Bafana during the recent World Cup, as can be seen in the photograph taken on one of the Football Fridays.



The School hosted a group of Programme for Technological Career (PROTEC) learners on 17 June at the Westville campus laboratories. Students who have never seen or worked in a chemistry laboratory were exposed to a modern laboratory, were shown some general laboratory experiments and were given an opportunity to perform some lab experiments themselves. PROTEC is a national independent non-profit educational service provider in South Africa that specialises in Maths, Science and Technology education. Holiday programmes are conducted for learners in grades 10 to twelve.



Staff and students from Chemistry at the Open Day on the Westville campus.

Obituary for Dr John Ashley Nevines



Dr Ashley Nevines from the School of Chemistry, passed away on 2 June whilst in St Augustine Hospital.

Dr Nevines, who was originally from Yorkshire in the UK, came to South Africa to undertake his PhD at Rhodes University under the supervision of Professor Trevor Letcher. In 1992, when Professor Letcher took up the headship of the Chemistry Department at the former University of Natal, Dr Nevines moved to Durban. He settled in easily and his love of the outdoors and nature meant that Durban was the perfect place for him. He was soon diving at Aliwal Shoal and Sodwana and visiting the local game parks. In 1995 he married Ms Elena Lakoba, a fellow PhD student in the Chemistry Department.

After completing his PhD in 1998, Dr Nevines joined the former University of Durban-Westville as a lecturer in Physical Chemistry. He was subsequently promoted to Senior Lecturer. He established a collaborative research programme with colleagues at the Technical University of Warsaw and was due to visit them again in June this year.

Dr Nevines was a warm and gentle person. He was always calm and understanding and of good cheer. He passed on his love of nature to many colleagues and friends by arranging camping trips and expeditions. He was also a dedicated teacher and a helpful colleague. We will miss him greatly in the School.



Programming team does UKZN proud at national IT challenge

“The Metaraptors”, a programming team from the School of Computer Science, was placed 2nd in the national 2010 Standard Bank IT Challenge held recently at Standard Bank’s Head Office in Johannesburg.

Comprising universities from all over the country, the competition aimed to bring out students’ programming abilities and test their team work skills. Each team of four students had to include at least one member of the opposite sex, one person from a disadvantaged group and a team manager. The teams were required to complete a series of questions using one of three programming languages – Java, C++ or Python.

The competition was divided into two stages with the first stage taking the form of intra-university heats conducted on different university campuses. The winning teams advanced to a final inter-university competition that also involved two Standard Bank staff teams.

The final was a closely contested competition with teams racing against time to see who could complete the most problems. A highlight of this year’s



Pictured at the IT Standard Bank Challenge: (from left) Standard Bank representative and UKZN alumnus, Mr Jonathan Dudley; Programming Competition Site Manager from the School of Computer Science, Mrs Rosanne Els; the Metaraptors team members: Mr Nadeem Vawda, Mr Yaseen Moolla, Mr Zane Mayo and Ms Cara Reeve; and Programming Competition Site Assistant from the School of Computer Science, Mr Aslam Safla.

competition was the on-line score board which allowed interested parties to follow their teams’ progress throughout the day. According to team manager, Mrs Rosanne Els, the UKZN team was “consistently in the top three, and frequently in first place.”

In the last hour, the UKZN team was narrowly defeated by Stellenbosch who managed to solve one more problem. This

left UKZN and UCT tied on five correct problems each but since UKZN’s times were considerably better, they were awarded second place.

The UKZN team comprising Mr Nadeem Vawda, Mr Zane Mayo, Mr Yaseen Moolla and Ms Cara Reeve all won new 22" Dell LCD Monitors for their outstanding achievements.

Computer Science researchers embark on two new inter-disciplinary research initiatives

UKZN is a key partner in an international consortium that is working on a new European Union Framework 7 research project, the EO2Heaven project. The aim is to build an ICT platform that integrates remotely sensed, in-situ, health and social data to identify and monitor conditions that adversely impact on human health. Dr Moodley from the School of Computer Science recently represented UKZN at a project meeting held in Karlsruhe, Germany from 8-10 June to finalise and plan upcoming activities for the consortium. The UKZN EO2Heaven team brings together researchers from the Health Sciences, Environmental Sciences and Computer science. The team is lead by Professor Rajen Naidoo from the Department of Occupational and Public Health

and includes Professor Fethi Ahmed and Mr Yerdashin Padayachi from the School of Environmental Sciences, and Dr Deshen Moodley from the School of Computer Science. UKZN is contributing a case study application to monitor air pollution and its impact on respiratory disease in the south Durban area.

Professor Jules Tapamo and Dr Deshen Moodley from the School of Computer Science, together with Dr Ursula Scharler from the School of Biological and Conservation Sciences, have formed an inter-disciplinary research team to investigate advanced computing techniques to simulate and predict complex ecosystem behaviour. A Computer Science Masters student, Mr Guerichon Munezero, under the super-

vision of the team, will kick-start the project by investigating a Machine Learning Approach to Finding Boundary Conditions for Ecosystem Behaviour.



“Be a Scientist for a Week” participants testing their robots which they learned to programme as part of their session in the School of Computer Science.

Dr Serban Proches receives Vice-Chancellor's Research Award for 2009

The University's most prestigious research accolade, the Vice-Chancellor's Research Award, has been awarded to Dr Serban Proches for 2009. A Senior Lecturer in the School of Environmental Sciences on the Westville campus, Dr Proches holds a National Research Foundation (NRF) P-rating (young researcher with exceptional leader potential). He is one of only two P-rated researchers in the country and received the NRF President's Award in 2008 for his contribution to knowledge creation and dissemination.

Dr Proches has published fifty journal articles to date, primarily in the fields of Biogeography and Biodiversity. His current projects address topics such as global regionalisation, alien plant invasions, and the Maputland-Pondoland-Albany region – one of the thirty-four globally recognised biodiversity hotspots, stretching from the Eastern Cape to Mozambique, with the city of Durban lying at the very heart of it.



Dr Proches searching for the elusive nanophyid weevils associated with *Melastomataceae*.

In particular, Dr Proches focuses on weevils (*Coleoptera: Curculionidae*) associated with plants endemic to this region – as indicators of plant persistence and climatic stability. With over 10 000 species in South Africa and hundreds of thousands worldwide, weevils are the most diverse group of organisms regionally and globally. They vary enormously in colour and shape but are severely understudied in southern Africa. Most weevil species are specialists associated with one plant type or a few

related varieties, and cannot survive without large populations of their host plants. Several weevil lineages survived over tens of millions of years in this region, some ever since the break-up of Gondwanaland, but currently face threats from insecticide use and unsustainable plant collection. Finding weevils involves the thorough examination of plants, in particular flowers and fruit.

Dr Proches joins a proud tradition of previous Vice-Chancellor's Research Award winners from the Faculty of Science and Agriculture including: Professor Orde Munro (Chemistry, 2007), Professor Richard Mace (Physics, 2005), Professor Steve Johnson (Biological and Conservation Sciences, 2002) and Professor Rob Slotow (Biological and Conservation Sciences, 2000). Since its inception researchers from the Faculty of Science and Agriculture have claimed 12 of the 21 Vice-Chancellor's Research Awards.

Productive sabbatical leave for Dr Watson

Dr Helen Watson spent most of her sabbatical leave finalising her commitments to the EU-funded COMPETE "Competence Platform on Energy Crop and Agro-forestry Systems – Africa" project www.compete-bioafrica.net. The project ran from January 2007 to December 2009 and Dr Watson led the "Current Land-Use Patterns and Impacts" Work Package. She used Geographic Information Systems (GIS) to interrogate numerous databases in order to identify land in sub-Saharan Africa where biofuels feedstock production could potentially be sustainable. The main output of her work is an interactive GIS on the COMPETE website, which allows the user to see the effect of filtering out land which should not be used for biofuels because of a particular or combination of constraints.

As part of this project, Dr Watson traveled extensively during her leave. She spent



Dr Watson (centre) giving the welcome address as the Africa representative at the "Bioenergy for Sustainable Development in Africa" International Conference in November in Brussels.

periods working at Imperial College and Utrecht University. She participated in study tours to Mexico, Zimbabwe and Zambia which sought to identify best practices for the production of biofuels. She gave presentations focusing on potential environmental and food security impacts of biofuels in Africa at international work-

shops organized by COMPETE partners in Lusaka and Brussels. Dr Watson also had the opportunity to share her findings as an invited speaker at an international conference in Brussels and in Addis Abba. In addition, she was also a guest of the Stockholm Environment Institute in Dar es Salaam.

Warwick wins again

Mr Warwick Hastie has been awarded both the Corstorphine Medal and the John Handley Award for his MSc thesis in Geological Science. The John Handley Award recognises Mr Hastie's thesis as the best submitted to a South African University in 2009, while the Corstorphine Medal affirms that, in addition to being the best in the country, his thesis is of international standard. It should be noted, however, that not every recipient of the John Handley Award receives the Corstorphine Medal.

Mr Hastie's study which is entitled "Rock fabric study of the northern Lebombo and Rooi Rand dyke swarms—regional and local implications" investigated the magnetic and crystalline fabric of dolerite dykes in South Africa and Swaziland. This is yet another feather in his cap as he won the Haughton award for the best Honours dissertation in 2006. Mr Hastie will receive both awards at a formal ceremony at the AGM of the Geological Society in Johannesburg.



Mr Warwick Hastie.

New equipment

The geotechnical laboratory has received a boost in the form of a brand new Servo-Hydraulic Compression Testing Machine, designed to test the compression strength of concrete, cement and rocks.

Staff news

The School welcomes the arrival of three new staff members: Dr Lopamudra Saha, Dr Egerton Hingston and Dr Andrew Green. Dr Saha joins us as a lecturer in Mineralogy, having held a

previous post-doctoral fellowship in the school from 2008-2009. She received her PhD from the Indian Institute of Technology in Kharagpur where she focused on the metamorphism of granulite facies rocks from northwest India. Dr Hingston takes over the role of Lecturer in Engineering Geology, having previously held positions at the University of Leeds and Fourah Bay College at the University of Sierra Leone. He completed his PhD in 2008 at the University of Leeds on the geotechnical variability of landslide hazards. Dr Green is no stranger to the School as he has held the post of

Lecturer in Marine Geology since 2007. After returning from a round-the-world trip, he re-joins the School as Lecturer in Sedimentology. The School wishes them all a warm welcome.

Last but not least, we bid a sad farewell to Dr Axel Hofmann who leaves us to take up an associate professorship at the University of Johannesburg. He joined the School as a lecturer in 2005 where he established himself as an authority on Archaen Geology. We wish him all the best for the future.

At the Faculty's graduation ceremony on 17 April, the University awarded **Professor Jamshid Moori** a Fellowship. A mathematician of international repute, Professor Moori was made a life-Fellow of the University for his outstanding contribution to the discipline.

Professor Jamshid Moori and **Professor J D Key** were two of the main speakers invited to the workshop/conference organised by the NATO Science for Peace and Security Programme held at Opatija, Croatia between 30 May and 11 June. The theme of the workshop/conference was: *Information Security and Related Combinatorics*. Professor Moori delivered lectures on *Finite Groups, Designs and Codes*, while Professor Key delivered lectures on *Permutation Decoding for Codes, Designs, Finite Geometries and Graphs*. More information on the workshop/conference can be found at <http://www.math.uniri.hr/NATO-ASI/>

Professor Michael Henning left the School of Mathematics (Pietermaritzburg campus) at the end of the first semester to take up a research professorship at the University of Johannesburg. Also, **Dr Petrovius Horton** moved to the University of Swaziland. The School is sad to lose these fine academics and friends to other universities.

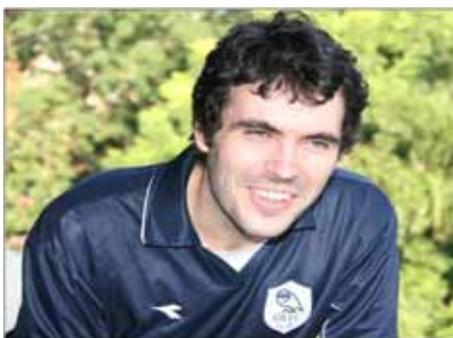
In January **LAMSIT** (Loose Association of Mathematical Scientists and Information Technologists) of UKZN-PMB introduced a folder in its tea room for keeping records of members' solutions to tea-time teasers. Teasers are usually posed by LAMSIT members or their visitors to the tea room whenever they come across them. These teasers are some of the challenges enjoyed by the LAMSIT members during tea breaks.

An article co-authored by **Dr Matt Hilton**, a post-doctoral fellow in the Astrophysics and Cosmology Research Unit (ACRU) within the School of Mathematical Sciences, has been published in the science journal *Nature*. The article entitled "Early

assembly of the most massive galaxies" appeared in the April 2009 issue. The article describes observations of some of the most distant known galaxy clusters, which suggest that the brightest galaxies within them were already almost as massive as their counterparts in the local universe some nine billion years ago.

This contradicts current theories of galaxy formation, and suggests that these galaxies grew to 90% of their final stellar mass approximately five billion years after the Big Bang. The observations were conducted using one of the largest optical telescopes in the world – the Subaru telescope – which is located on the summit of Mauna Kea, Hawaii. Since this work appeared in *Nature*, Dr Hilton has used this same data in combination with imaging from the Hubble Space Telescope and Spitzer, a space infrared observatory, to study the galaxy population in one of these distant clusters in detail. His most recent work, to be published in *The Astrophysical Journal* in July, shows that some galaxies deep within this cluster appear to be forming stars at prodigious rates.

Dr Hilton says, "In contrast, there is virtually no star formation going on in the cores of clusters in the local universe. This suggests that at roughly nine billion years ago, we may be entering the epoch where cluster galaxies formed most of their stars." Dr Hilton completed his undergraduate degree in Sheffield and his PhD at Liverpool John Moores University in the UK. He began a post doctoral fellowship at UKZN in September 2007, working with Professor Kavilan Moodley. He will be



Dr Matt Hilton.

moving to the University of Nottingham in September, where he will continue his research in galaxy formation.

Dr Megan Govender, a senior researcher and astrophysicist within ACRU, has taken his science experiments to another level. His main passion is working with disadvantaged students by showing them how much fun science can be.

His unusual science experiments have made him extremely popular amongst children, teenagers and adults and have even gotten him internationally recognised. Dr Govender says that he is a huge fan of Michael Jackson as well as of talk show host, Ellen DeGeneres.

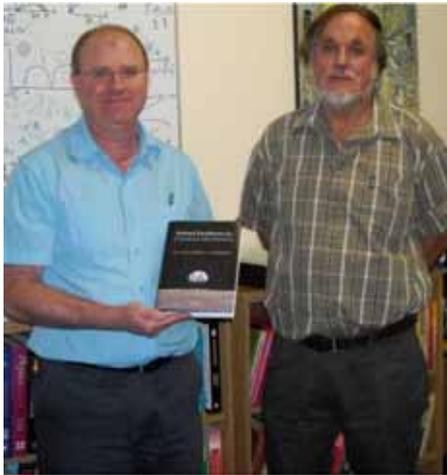
He admits that the 'Ellen show' has had a huge impact on him and he recently sent through an e-mail to the talk show host telling her how much she inspires him. The e-mail was read to her live studio audience and she sent through her greetings to Dr Govender. Soon, he will be sending two videos to her. "One is a science experiment that I am putting together, and the second is a massive dance video. I want to show Ellen what her show has done for me – that it has made me push the boundaries." said Dr Govender. 'Dr G', as he is affectionately referred to by his students, starts each lecture with a string of jokes as well as some funky dance moves.



Dr Megan Govender interacts with high school learners.

UKZN physicists publish textbook

After almost six years of intense work, Professor Owen de Lange and Dr John Pierrus from the School of Physics in Pietermaritzburg, have completed a textbook aimed at both undergraduate and postgraduate students. The book entitled *Solved Problems in Classical Mechanics*



Professor Owen de Lange pose with their newly-published book.

was published in May by Oxford University Press and will soon be available for purchase.

Apart from an introductory chapter giving a brief summary of Newtonian and Lagrangian Mechanics, this book consists entirely of questions and solutions on topics in classical mechanics that will be encountered in undergraduate and postgraduate courses. These include one, two, and three-dimensional motion; linear and nonlinear oscillations; energy, potentials, momentum, and angular momentum; spherically symmetric potentials; multi-particle systems; rigid bodies; translation and rotation of the reference frame; the relativity principle and some of its consequences.

The solutions are followed by a set of comments intended to stimulate inductive

reasoning and provide additional interesting information. Both analytical and numerical (computer) techniques are used to obtain and analyse solutions. The computer calculations use Mathematica (version 7), and the relevant code is given in the text. It includes use of the interactive Manipulate function which enables one to observe simulated motion on a computer screen, and to study the effects of changing parameters. The textbook will also prove invaluable to the instructor as it provides lecture, tutorial and examination material.

A prominent British scientist from Cambridge University, Professor David Buckingham, remarks: "The writing is succinct and clear and the comments often bring out the relevance of the problem to a phenomenon of current interest as well as points of historical importance. The problems are varied and well chosen."

QuantumStadium launch secures communication for the 2010 World Cup

UKZN's Centre for Quantum Technology (CQT) and the eThekweni Municipality joined hands to provide unprecedented communication security to Durban's FIFA World Cup operations. Their QuantumStadium Project used quantum cryptography to ensure that all forms of communication between Durban's Moses Mabhida Stadium and its offsite operations centre were ultra-secure. The 2010 World Cup was the first public global event to use a quantum based encryption solution.

The project was officially launched on 21 May at the Moses Mabhida Stadium by Minister of Science and Technology, Ms Naledi Pandor. Its prestigious nature was highlighted by the calibre of speakers on the programme which included eThekweni Mayor, Councillor Obed Mlaba and KZN Premier, Dr Zweli Mkhize.



from left: Pictured at the Launch of the QuantumStadium Project at the Moses Mabhida Stadium: (from left) Mayor eThekweni, Councillor Obed Mlaba, UKZN's Professor Francesco Petruccione, Minister of Science and Technology, Ms Naledi Pandor and KZN Premier, Dr Zweli Mkhize.

Molecular Optics flying high in Pietermaritzburg

The Molecular Optics Research group on the Pietermaritzburg campus, led by Dr Vincent Couling, remains actively engaged in experimental molecular optics research. Interests include experimental, theoretical and computational aspects of molecular optics, including the measurement and modelling of intermolecular interaction effects.

The group's research projects include the measurement of molecular polarisabilities and hyperpolarisabilities *via* the electro-optic Kerr effect, Rayleigh light-scattering, and the Cotton Mouton effect, as well as the measurement of electric quadrupole moments *via* electric-field-gradient induced birefringence.

Recent group graduates have had no trouble in finding work. Ms Angela Dudley



The Molecular Optics group: from left: Dr Vincent Couling, Dr Naven Chetty, Ms Angela Dudley and Ms Pat Govender.

graduated with an MSc degree in 2009 based on her work on the electro-optic Kerr effect and is currently employed as a researcher at the National Laser Centre in Pretoria.

The measurement of electric quadrupole moments earned Dr Naven Chetty his PhD in 2009. Dr Chetty, after teaching for many years on the Science Access programme on a contract appointment, took up a permanent lectureship within

the School of Physics in Pietermaritzburg on 1 July.

Ms Pat Govender is completing her MSc degree this year while also working as an intern at the Centre for Scientific and Industrial Research's (CSIR) Defence, Peace, Safety and Security (DPSS) group in Pretoria. Her experimental measurements of the stress-optic coefficients in ZnSe polycrystalline material is of direct interest to the DPSS.

The Italian experience at PMB

Dr Alessandro Sergi arrived at UKZN's Pietermaritzburg campus in 2007 after gaining vast experience in both Italy and North America. His research deals with the development and application of numerical algorithms for the computer simulation of quantum and classical systems in the condensed phase. He holds a B3 NRF rating, is a NITHEP associate, and collaborates routinely with the Centre for Quantum Technology in Durban.

Currently his group consists of one honours and three masters students. In Dr Sergi's view, research is a very effective way of mentoring students and helping them in the development of their careers. He believes in a bottom-up approach to teaching, where the teacher has to build "bridges" to lead the student from his/her initial state of

knowledge to an operational level, one where strategic thinking, problem-solving, time-management, and study techniques can be emphasised.

Since his arrival, Dr Sergi has published five papers in peer-reviewed international journals and two conference proceedings.

Obituary for Professor Clive Graham

Those who knew Professor Clive Graham were saddened by the news of his death on 5 June after a long illness.

Professor Graham was a product of the Physics Department in Pietermaritzburg with outstanding results in all his degrees (BSc 1961, BSc Hons 1962, MSc 1965, PhD 1969). In 1969 he was awarded one of the 1851 Exhibition Scholarships which are given to young scientists or engineers within the Commonwealth who show exceptional promise. This enabled him to complete a second doctorate (1972) in Molecular Physics under Professor AD Buckingham FRS of Cambridge University. In 1972 he was appointed Lecturer in the Physics Department in Pietermaritzburg and progressed to Senior Lecturer in 1976 and Professor and Head of Physics in 1994.

Professor Graham's students at both the undergraduate and postgraduate levels

regarded him as a caring and outstanding lecturer and supervisor. This reputation resulted in him holding temporary appointments in Physical Chemistry three years past his retirement in 2005. Active in research, Professor Graham supervised six MSc and four PhD students in the Molecular Physics Research Group and published 20 papers, all in respected international journals.

Outside the University Professor Graham was highly regarded in a range of activities: numismatics – he was the Vice-Chair of the KZN Society where, due to his knowledge and integrity, many people sought his advice; philately and clivia growing – he was an active member of the Clivia Society. He also made jewelry of professional quality and collected South African art, of which he had a small and tasteful collection. He was indeed a man of many parts and will be sadly missed.



From left: Daniel Uken (Masters Student), Nkosinathi Dlamini (Honours Student), Emmanuel Obaga (Masters Student) and Dr Alessandro Sergi (standing).



Professor Clive Graham.



The School of Statistics and Actuarial Science
"Excellence in all that we do!"

School of Statistics & Actuarial Science

Math4Stats Lecture Series – Empowering Educators

The School of Statistics has just concluded a series of lectures in Statistics which was offered to educators in a “train the trainer” type of approach, targeting in-service teachers. The lecture series was conceived as an International Statistical Institute (ISI) legacy project, which was spearheaded through a partnership between STATS SA, UKZN and the Department of Education (DoE). The University provided lecturers, lecture venues and course notes. The DoE selected teachers to register and participate in the training while STATS SA provided the needed co-ordination, funding and logistical support. The lecture series was held over five months from January to May

on both the Pietermaritzburg and Westville campuses.

The process culminated in two closing ceremonies on 22 May and 29 May on the Pietermaritzburg and Howard College campuses. Educators who attended all the lectures in the series received certificates of attendance presented by representatives from the three participating institutions.

The School wishes to thank all academic staff members who helped to empower the educators with much needed statistical skills for the effective delivery of the subject to schools. On the Pietermaritzburg

campus the lectures were delivered jointly by Professor Temesgen Zewotir, Mr Oliver Bodhlyera, Dr Shaun Ramroop and Professor Henry Mwambi. On the Westville campus the lectures were delivered by Professor Delia North (who was the originator of the project), Professor Michael Murray, Dr Henri Moolman, Ms Annapurna Hazra, and Ms Arusha Desai.

It is hoped that this initiative will be repeated in 2011. The KwaZulu-Natal province was identified as the pilot site for the project and it is hoped that it will be replicated in other provinces.

Produced by:

Corporate Relations ❖ University of KwaZulu-Natal

Contact : Vicky Crookes

e-mail: Crookesv@ukzn.ac.za ❖ Tel: (033) 260 5808