

Monday Paper

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GRAD EDITION



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Congratulations UCT!



Jubilation: Each year health sciences students like these 2010 graduands celebrate the release of their results in early December. This year there was a 98% pass rate among the MBChB class of 175 students, 41 of whom passed with first-class honours. The top final-year student was Kate McMullen. The Overall Gold Medal was shared between McMullen and Juanita Becker.

Graduation ceremonies are the highlight of our academic calendar: celebratory and memorable occasions for the hundreds of graduands and their families.

UCT will stage no fewer than 12 ceremonies over six days, 12 to 17 December, and our teams will be hard at work, even on the Day of Reconciliation on 16 December (for which we are most grateful!)

We are proud to be awarding a number of special awards, news of which appears on pgs 2 and 3: honorary doctorates to Dr David Potter and Mary Burton, the Chancellor's Award

for Outstanding Leadership in Africa to Archbishop Emeritus Desmond Tutu, the first Chancellor's Award to Di Oliver, and the President of Convocation Medal to Professor Richard van der Ross.

Our graduation ceremonies have grown steadily in number and size over the years. In 2010, for example, we capped 5 062 students over the December graduations, up almost 400 from the 4 768 in 2009. (And 4 489 in 2008, and 4 507 in 2007.)

This week, just under 5 250 students are expected to graduate. (These numbers, the latest available

as *Monday Paper* went to print on 8 December, are subject to change.)

Of these, 1 808 will hail from the Faculty of Humanities, 1 378 from the Faculty of Commerce, 782 from the Faculty of Engineering & the Built Environment (EBE), 580 from the Faculty of Science, 534 from the Faculty of Health Sciences, and 167 from the Faculty of Law.

"Every single graduation is a success story. It represents years of hard work from the student, and the dedicated support and encouragement of a host of 'backroom staff' – from family and friends to lecturers, tutors,

demonstrators and supervisors," said Gerda Kruger, executive director of the Communication and Marketing Department.

But of course, being a research-led institution, we take particular pride in the hundreds of students who officially cap their postgraduate studies. (Many will push on again next year; among these, we hope, will be the next generation of scholars.)

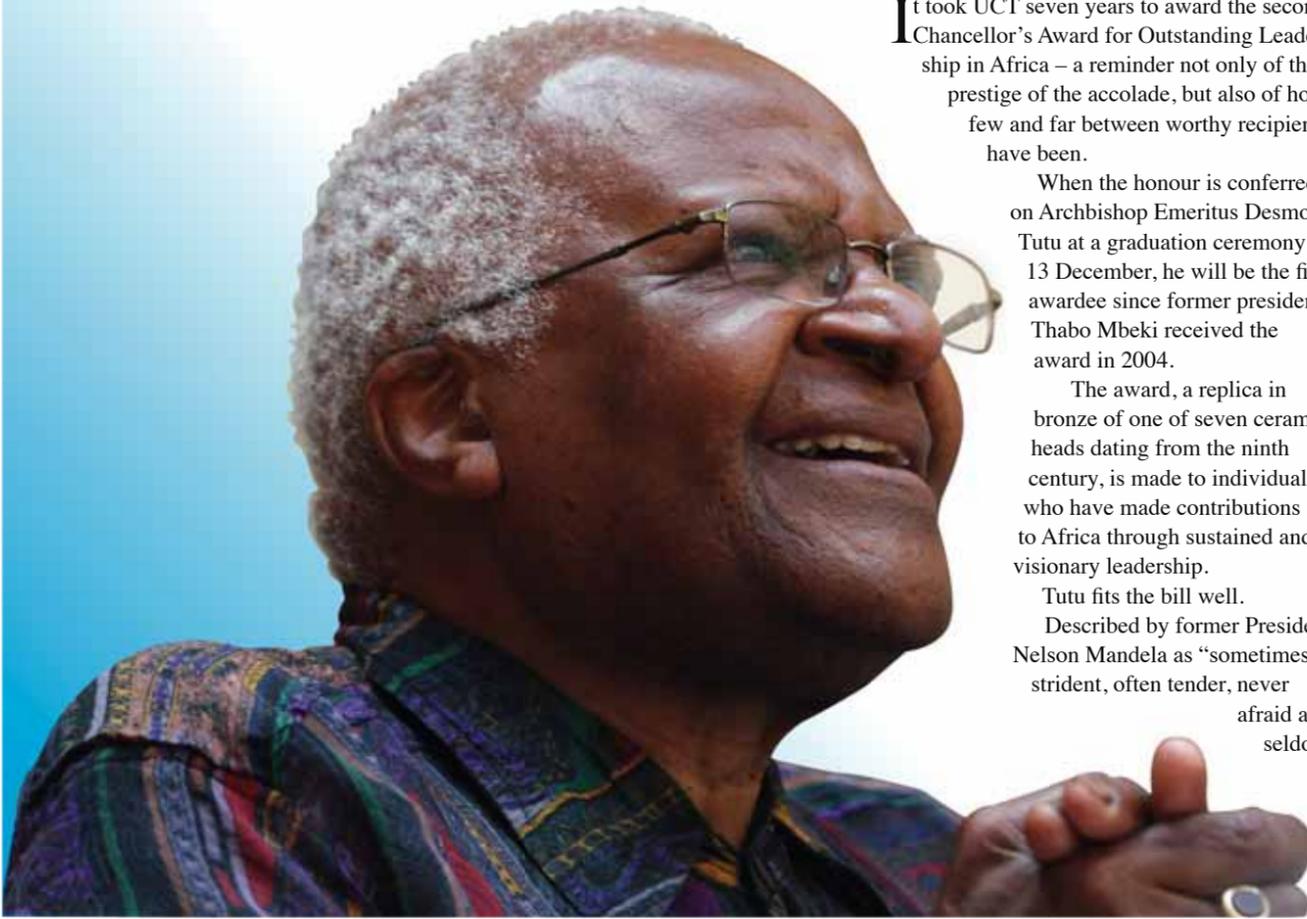
For example, UCT will graduate 89 Doctors of Philosophy this week. The total number of PhDs awarded for 2011, including the June graduates, stands at 152.

The faculty breakdown for December's PhD graduates is 27 from Science, 24 from Health Sciences (including seven from the Department of Medicine, as recorded on page 4), 15 from Humanities, 10 from EBE, seven from Commerce, and six from Law.

The Faculty of Humanities will cap the largest numbers of students finishing diplomas and certificates (436) and honours degrees (347); while EBE will graduate the biggest cohort of master's students (144).

All in all, another remarkable year for UCT. ■

African leadership award to Tutu for global activism



It took UCT seven years to award the second Chancellor's Award for Outstanding Leadership in Africa – a reminder not only of the prestige of the accolade, but also of how few and far between worthy recipients have been.

When the honour is conferred on Archbishop Emeritus Desmond Tutu at a graduation ceremony on 13 December, he will be the first awardee since former president Thabo Mbeki received the award in 2004.

The award, a replica in bronze of one of seven ceramic heads dating from the ninth century, is made to individuals who have made contributions to Africa through sustained and visionary leadership.

Tutu fits the bill well.

Described by former President Nelson Mandela as “sometimes strident, often tender, never afraid and seldom

without humour”, Tutu has been a spokesperson against international social ills, such as civil wars, corruption, non-democratic governments, poverty, HIV/AIDS and TB, human-rights abuses – the list goes on.

Tutu's straightforward talk has angered some. The Congress of South African Students once condemned him as a “loose cannon” and a “scandalous man”, while some members of the American Psychiatric Association refused to attend the group's annual meeting in protest at Tutu's attendance as speaker, because of the retired bishop's alleged anti-Semitic statements.

The Nobel Peace Prize Laureate also has numerous associations with UCT.

A regular visitor to the campus, he is also the benefactor behind the Desmond Tutu HIV Centre, established in 2004. With an experienced and dedicated team of over 165 doctors, nurses, researchers and community-trained field workers, the centre has become a wellspring of knowledge and expertise for medical practitioners, offers support for people seeking testing or treatment, and takes the lead in preventative education.

In 2010 UCT's Marine Research Institute part-named its Nansen-Tutu Centre for Marine Environmental Research after him, recognising his concern for environmental and climate change issues.

UCT presented Tutu with an honorary doctorate in law in 1993. ■

Activist and patron: Archbishop Emeritus Desmond Tutu will receive a special leadership award from UCT this week.

Oliver is first recipient of Chancellor's Medal

Long-serving Black Sash stalwart Di Oliver is to be honoured for her role in advancing peace and justice in South Africa by becoming the first recipient of UCT's Chancellor's Medal on 12 December.

The award was instituted by the University Council in 2007 to honour those who have “made a significant contribution to a common good”.

In a letter to Oliver, inviting her to accept the award, vice-chancellor Dr Max Price said: “Your record of having profoundly impacted the lives of many, and no doubt continuing to do so, is remarkable.”

Oliver (née Bishop) was a member of the Black Sash from 1978

until membership closed in 1995. She has been a trustee of the Black Sash Trust since then, serving as its chairperson between 2005 and 2006. She is a board member of a number of NGOs and an active parishioner at St George's Cathedral, where she is a lay minister and the co-ordinator at Caritas (the Cathedral's caring ministries) and the Cathedral Justice and Reconciliation group.

In an interview with Monday Paper, Oliver said she was thrilled with the award.

“I was completely taken by surprise. I hold UCT in such high regard,” she said.

“I consider it an honour and a great recognition of the importance

of civil society activism in our country. The work I have done has formed me. It is a reciprocal thing.”

Oliver said she had never sought recognition for her work.

“I worked as a social worker, then became very political because I became deeply involved in anti-apartheid work.”

She added: “This award comes at a time when there is a great deal of questioning about the activism needed in civil society, after what appears to be a new wave of oppression arising.”

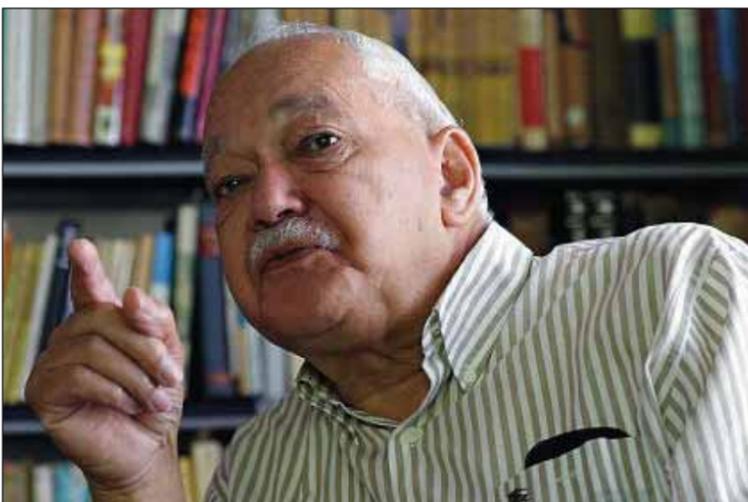
What drives her?

“Just wanting to contribute to making the world a more just, caring and less harsh place.” ■



Honouree: Black Sash stalwart Di Oliver, rewarded for her activism and work towards justice and peace.

Honour for top historian



Pioneer: Prof Richard van der Ross. (Photo courtesy of Die Burger.)

Whether in education or the media, civil society or politics, historian Professor Richard ‘Dick’ van der Ross has played a crucial role in improving South Africa since he graduated from UCT in 1940.

Now his alma mater will honour him with the President of Convocation Medal at a graduation ceremony on Saturday 17 December. The medal is awarded annually, to UCT graduates who have brought credit to the university through their contributions to the wider community.

“The Convocation of UCT must be one of the most prestigious bodies in the country, and it's an honour to be awarded by them,” Van der Ross

commented on the award.

But to enrol at UCT in the late 1930s, Van der Ross said, was in itself an achievement for a black person.

“I followed my father, who in 1925 was only the third member of my community to graduate with a BA at UCT.”

At UCT, Van der Ross obtained a primary and secondary teacher's diploma, as well as a master's degree and a PhD in philosophy. For many years he worked as a teacher and as a principal at Cape Town schools, and edited what was then the Cape Herald newspaper, before he was named the first black principal and

vice-chancellor of the University of the Western Cape in 1975, a post which he occupied until 1986.

Van der Ross, who penned a number of books and articles, was among the first three members of the former Democratic Party to serve in the Western Cape Legislature in 1994, before he was appointed ambassador to Spain and Andorra.

Now, at 90, he writes a bit and still works to improve other people's lives.

“I always remember that if I have been able to be of service to others, it has been in no small measure due to my association with the University of Cape Town.” ■

Honorary doctorates for Burton, Potter



Bumper crop: (From left) Tim Low, Dr Susan Levine and Dr Gregory Smith, (along with Assoc Prof Michael Campbell (inset photo), are the recipients of the 2011 Distinguished Teacher Awards.



Quartet of outstanding teachers feted

This year marks the 30th anniversary of UCT's Distinguished Teacher Award (DTA). The highest accolade given to teaching staff at all levels in the university, the honour recognises excellent teaching; and the primary importance of teaching and learning in the university's work.

As chance would have it, 2011 is a bumper year for the award, with four recipients joining the university's DTA ranks. (Only two DTA winners were named in 2010.) They are Associate Professor Michael Campbell, Dr Susan Levine, Tim Low and Dr Greg Smith, announced at the recent Distinguished Teacher Dinner. Further announcements will be made during this week's graduation ceremonies.

Teaching always came first, **Michael Campbell** explains. It had to, as he started up the jazz programme at UCT's South African College of Music as soon as he was appointed some 22 years ago. He's led jazz studies ever since. Campbell has been hailed for "his ability to integrate the creative, abstract elements of his field with systematic study methods in order to provide students with real perspective into the subject and broad understanding of its 'real' world application". Mostly self-taught, those real-life and practical components have become staples of his teaching. As has a sore back, a clear indicator he's been pushing hard in class, he says. "You have to give some of yourself to [teaching] if you want to engage people, and that can be stimulating or draining, and sometimes both."

Colleagues and staff have sung the praises of **Susan Levine** as a teacher of both medical and visual anthropology (a teaching field she pioneered in South Africa) in the Department of Social Anthropology. She treats her students as equals, they say, and offers them tools for living. She's inspired colleagues, who joke about cloning her, and students, one of whom credits her with changing said student's attitude towards academic work. "Teaching social anthropology requires some skill in the art of seduction," Levine says. Sometimes that requires a bit of humour and clowning, sometimes not. "If there is laughter in the classroom, then I know I'm on the right track," she says. "But there is also a kind of silence that indicates a captive audience. It is a silence infused with noise. This is a beautiful sound."

Tim Low teaches mathematics and statistics on the extended degree programme of the Faculty of Commerce. To make up for schooling shortcomings takes creativity, and an appreciation of what makes the current generation of students tick. So he's embraced social media, harnessing everything from Facebook to MXit and BBM (that's BlackBerry Messenger, for the older folk). "His use of [these] mediums to communicate with students," rings his citation, "underpins a truly progressive teaching philosophy with an approach of accessibility and taking education to the learners." He applies social media to teach concepts and to force students into a deeper understanding of the material. He's not all about remote technology, though. He has been praised for his energy, warm nature and enthusiasm. His teaching changes and inspires students, says one, and they and UCT are lucky to have him in the classroom.

Gregory Smith, of the Department of Chemistry, likes to take the research laboratory into the classroom. He's lucky though, he says, in that the various research projects he's involved in translate easily into lecture notes. "This pragmatic approach gives students a broader sense of the field of chemistry, and often helps to engender a passion for the subject," he says. A Superman t-shirt also helps. He uses this – and the power of chemistry – to teach chemical reactions by breaking a pre-treated cold-drink can in half. Videos, animations, role-playing (the television show *The Apprentice*) and various web-enhanced materials are similarly recruited. He wants to challenge students, so often tests them with short problem-solving and critical thinking questions. The aim of which, he says, is to gauge and improve students' understanding of what are conceptually difficult topics. ■

December's recipients of honorary doctorates are no strangers to UCT. Mary Burton, though better known for her long association with human-rights organisation the Black Sash, is a familiar face around campus, whether serving on UCT Council or attending or speaking at a university meeting. In turn, Dr David Potter, celebrated for his achievements as an inventor and entrepreneur, is a well-known name among the university's postgraduates for the David and Elaine Potter Fellowships, which he and his wife established through their David and Elaine Potter Foundation.

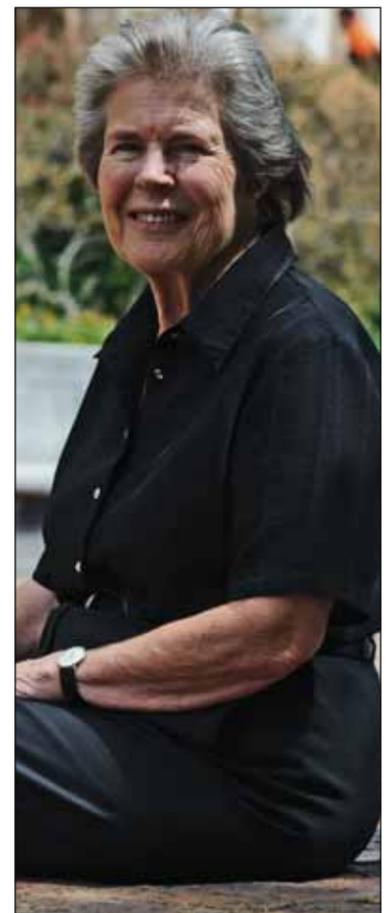
Mary Burton was born in Buenos Aires, Argentina, in 1940. In 1961, she moved from Argentina to South Africa. Aghast at the country's political situation, she took just four years to join the Black Sash. Over the subsequent decades, she was involved first in the struggle for human rights in South Africa, then in national reconciliation in the post-apartheid era. She was president of the Black Sash from 1986 to 1990, among her many other roles in the organisation. She also served on the Truth and Reconciliation Commission as a commissioner on the Human Rights Violations Committee, from 1995 to 1998. In addition, she's been involved with organisations such as the Surplus Peoples Project, the National Council of Women, the Civil Rights League and the South African Institute of Race Relations.

Burton also served two terms on UCT Council, including as deputy chair from 1999 to 2005. In 2000 she helped launch the Home for All Campaign, which called on white South Africans to contribute to reconciliation in recognition of the benefit and privilege they had had under apartheid. In 2003, she received the Order of Luthuli (Silver) from President Thabo Mbeki. The following year she was presented with the Western Cape's highest award, the Order of Disa, and the Reconciliation Award, conferred by the Institute for Justice and Reconciliation.

Somewhere among all her activities, Burton also made time to finish a BA degree in 1982, with majors in four subjects – political science, social anthropology, comparative African government and law, and English. "Although I had been very active in the Black Sash, I felt the need for a better historical and theoretical understanding of apartheid, and of politics in general," she says of her decision to register here. She wanted to continue her studies, but never did, as the political troubles in the country kicked into high gear in the 1980s. But on 12 December, Burton will finally receive a higher honour when UCT presents her with an honorary doctorate in social science.



Illustrious company: This week Dr David Potter and Mary Burton become the latest recipients of honorary doctorates from UCT.



Dr David Potter has been hailed as a great inventor and entrepreneur, but also as a philanthropist, especially one who has supported higher education in South Africa. He has also channelled some of the fruits of his success into supporting projects in education, research and Third World development. Born in East London in 1943 but brought up in Rondebosch, Potter was awarded a Commonwealth Scholarship to study for a doctorate in mathematical physics at Imperial College, London. He worked as an academic in the 1970s, teaching at the University of London and the University of California.

Then in 1980 he founded the software company Psion, which stands for Potter Scientific Instruments or Nothing – so named, it is said, to mark his formal retirement from academia (and which may explain why some have described him as an "eccentric"). Psion's first real success was with a flight simulation game, but more importantly, the company led the creation of the Organiser, Palmtop and PDA markets as a new market segment. Potter later founded Symbian Limited, which worked in partnership with Nokia, Ericsson, Motorola and Matsushita to create Symbian, the operating-system standard for mobile wireless devices. In the 1997 UK New Year's Honours list Potter was named a Commander of the Order of the British Empire for services to the manufacturing industry.

In 2001 he was elected a Fellow of the Royal Academy of Engineers.

Potter's ties with South Africa remain. So, for example, he serves on the South African President's Committee on Communication and Information Technology. Potter is the spouse of journalist and writer Elaine Potter, also born in South Africa. He has deep roots at UCT – his grandfather, Alfred Snape, was appointed professor of civil engineering at the South African College (SAC), which would become UCT a few years later, in 1910; and his grandmother was an early graduate of the SAC. Now the Potters support the university through the fellowship programme they established here through the David and Elaine Potter Foundation, giving an opportunity to motivated and academically excellent individuals to use their education for the betterment of South Africa and civil society. So far more than 40 master's and doctoral students have been supported through this initiative. "With [my personal and academic] background it is evident that I have a profound belief in the importance of education and its role in economic welfare and upliftment from poverty and dispossession," Potter says. "I am glad that I have been able to create the Potter Fellowships, to be involved with so many gifted young people and to maintain the family's linkage to UCT." Potter will be awarded an honorary doctorate in engineering science on 13 December. ■

'Mishmash' of transport modes on Cape's roads

It's perhaps fitting that the first completed doctoral work to come out of UCT's Centre for Transport Studies should set a scene.

In particular, Edward Beukes' thesis, titled *Context-Sensitive Road Planning for Developing Countries*, defined, mapped, clustered and classified – pooling reams upon reams of data – the very complex tangle that makes up Cape Town's roads system. For his thesis, Beukes employed three particularly long arterials as case studies; namely Voortrekker Road between Salt River and Bellville, Lansdowne Road between Claremont and Macassar, and Koeberg Road between Maitland and Table View. (As a side project, he ran a similar although computationally more demanding exercise for the entire Cape metropole.)

He then looked at the contexts of these three roads; ie how the land around them was being used, the socioeconomic status of the communities along them, the environmental make-up of the surrounding areas, and the transport systems in place. He then quantified and, for ease of use, clustered these contexts.

Finally, based on the contexts, Beukes described the relative suitability of five transport modes – car, bike, public transport, freight and pedestrian – along the three roads.

As expected, any one road is a mishmash of contexts. Voortrekker Road, for example, is a mix and match of six clusters. Public transport would be the best fit for one stretch of the road, for example, but less suitable for the next kilometre or so, and a good match again a few kilometres further on.

Ditto for cars, freight, bicycles and walking.

His work is a more sophisticated and nuanced modelling exercise than is typical for road planning, which is usually based on traffic volumes, Beukes believes. It could also feed into infrastructure planning, such as that required by the new South African Road Classification and Access Management Manual, and could be applied across the developing world.

"The context changes from one section of a road to the next," Beukes says. "All that I've done is come up with a way to put a number to that context, to describe it in a logical way with some data behind it, and to use that information to make recommendations for contextually appropriate road treatments."

Beukes' work was supervised by Associate Professor Marianne Vanderschuren of the Centre for Transport Studies, based in the Department of Civil Engineering. ■



Roadworthy: Edward Beukes, who receives his PhD this week, showed in his thesis that some Cape Town roads are giving planners plenty to think about.

CET's first Mellon-funded master's student graduates

YUSUF OMAR

This week UCT's Centre for Educational Technology (CET) will graduate the first sponsored master's students to complete a degree under its tutelage.

Paul Mungai will be one of the first Andrew W Mellon Foundation-sponsored, CET-supervised student to complete a master's degree at

UCT. Mungai was awarded a Mellon Scholarship for the postgraduate course in Information Communication Technology in Education.

In his thesis, Mungai explored the types of knowledge that University of the Western Cape social work students demonstrated while developing their ePortfolios.

ePortfolios, or electronic portfolios, are digitised collections of documents, images, artefacts, and

blogs that can be used to showcase development over time.

In this qualitative study, four social work students developed summative, working, reflective and assessment ePortfolios. Mungai found that subjective and descriptive knowledge were most pronounced in the ePortfolios of all four, although other types of knowledge also enjoyed varying degrees of prominence.

The Kenyan software developer, currently working at the University of the Witwatersrand, expressed gratitude to the Mellon Foundation for funding his studies at what he calls "the best institution on the African continent".

"This course has imparted useful knowledge in my area of work and I hope to impart the same to my work," he says.

Mungai's supervisor, Associate

Professor Dick Ng'ambi, explains that students supervised by the CET enjoyed a useful head start.

"One of the advantages for studying a master's in a centre is that students are supervised by staff who are educational technology practitioners, educators and researchers. CET staff continue to research and publish widely, and some are rated by the National Research Foundation." ■

Fighting for social justice on twin fronts

YUSUF OMAR

UCT's annual end-of-year graduation ceremonies bring thousands of proud parents to Jameson Hall to celebrate their progeny's fantastic achievements.

Judy Favish, director of the Institutional Planning Department, has reason to be doubly proud.

Her 24-year old twins, Keiran and Tess Peacock, are both graduating this year.

Considering that they were born within minutes of each other, it's not surprising that they will graduate together for the second time.

The twins were first capped in 2008 when Tess was awarded a bachelor of social science degree in politics, philosophy and economics (cum laude), and Keiran received his bachelor of social science degree in organisational psychology.

But the timing of their postgraduate studies wasn't as synchronised.

This year Keiran completed his Postgraduate Certificate in Education (PGCE), with History and Life Orientation as his specialist teaching subjects.



Double: Judy Favish with twins Keiran and Tess.

His mother says that his passion for teaching was so great that he decided to register for the PGCE this year after spending 2010 working.

He had already gathered some teaching experience; he was a senior tutor during his undergraduate years, and spent six months of 2009 teaching in China. He spent the remaining six months of 2009 as a voluntary tutor at Tsiba College.

His twin sister will graduate with a postgraduate Bachelor of Law (LLB). Tess will begin articles with Johannesburg firm Webber and Wentzel in the new year.

Tess, who also tutored at UCT, aims to specialise in public and human rights law, a target that Favish says stems from a desire for social justice that both her children crave.

"They both have a passion for issues relating to social justice," says Favish, "but they want to go about it in different ways – one through law and one through teaching."

The twins certainly have admirable activism pedigrees.

In addition to volunteering at Tsiba College, Keiran spent six months practising-teaching at ID Mkhiza High School in the impoverished Cape Town township of Gugulethu.

"He feels very strongly about making a contribution to improving education, especially in poor areas," says Favish.

Tess, meanwhile, was the chairperson of civil society organisation Students for Law and Social Justice (SLSJ) in 2010. This year she sat on the SLSJ's national committee.

During her post-matric gap year, she decided against the conventional tours of the West so popular among matriculants. Instead, she spent months teaching at a rural school in Tanzania.

Favish is duly chuffed.

"They're both sweetie pies!" she says proudly. ■



Doctors in the house: Dr Graeme Meintjies (left) and Dr Richard van Zyl-Smit are two of the seven doctoral graduates to come out of the Department of Medicine this year.

Medicine's magnificent seven

YUSUF OMAR

This week, UCT's Department of Medicine will graduate the most PhD students it's capped in one go in its 91-year history.

Seven new doctors of medicine will graduate on 17 December, much to the delight of the department.

Head of medicine Professor Bongani Mayosi says that the achievement is particularly remarkable because six of the seven are clinicians. Clinicians have traditionally not done PhDs, he explains.

Clinicians' training is typically geared towards a professional, hands-on role in clinical practice, he says, and not to academia.

This year marks the beginning of

a new trend, perhaps, inspired by a capacity-building effort that the department began about five years ago - the UCT Clinical Scholars Programme.

Its aim, explained Mayosi, is to increase the number of PhDs in medicine.

"This is a major milestone in the efforts of members of our department to grow the next generation of academic leaders," he says.

The six clinicians are Dr Graeme Meintjies, Dr Keren Middelkoop, Dr Mpiko Ntsekhe, Dr Ian Ross, Dr Mashiko Setshedi and Dr Richard van Zyl-Smit. Sarin Somers is the non-clinician in the group.

"They are now finally earning the academic right to use the title 'doctor'!" Mayosi proudly proclaimed. ■

Biological alarm clocks that affect performance and immunity

Circadian clocks: That's what the research of two UCT students who've each completed an MSc in molecular and cell biology have in common.

Vaibhav Bhardwaj, whose MSc focuses on plants, and Lovemore Kunorozva, who studied athletes, both had circadian clocks as a theme in their work.

The term 'circadian' refers to events that occur on a 24-hour cycle. All organisms possess circadian rhythms, driven by an internal time-keeping system, or biological clock. This is synchronised by changes in the external environment, particularly the light-dark cycle.

Circadian clocks affect almost every level of human bodily function.

In his dissertation, *Diurnal preference and sports performance: A genetic and subjective view*, Kunorozva showed that individual athletes such as cyclists, runners and triathletes tend to be morning-type people, or 'larks'.

He showed that these individuals are genetically different, at a circadian clock-associated PER3 gene level,

to a healthy, active, non-competitive population.

"Circadian rhythms play a fundamental role in sports in terms of optimising training time, performance, adjustment to global time zone changes and scheduling times of events. Performance varies with time-of-day, and this variation is due in part to circadian regulation of physiology. It generally peaks later in the day, when core body temperature is at its peak."

Kunorozva is planning to do a PhD on the impact of circadian rhythms on sports performance through a study of travelling sports teams.

In his dissertation, *Keeping time on the plant-pathogen arms race: A role for the plant circadian clock in immune response*, Bhardwaj found there is variation in the response of plants to pathogens depending on the time of infection.

He showed that the circadian clock in plants regulates their immune responses.

"Our central question was, do plant defence responses to bacterial infection vary with time-of-day, and



In time: Lovemore Kunorozva and Vaibhav Bhardwaj worked on different topics, but with time as the common denominator.

is that a feature of the plant circadian clock?"

All living organisms possess a circadian clock, but for plants this feature is particularly important as they are immobile and cannot flee

from adverse conditions.

"So the circadian clock of plants enables them to anticipate regular events such as sunrise and sunset. We investigated whether plants anticipate infection, using their circadian clocks."

Results showed that plant defence responses did indeed show a time-of-day difference, with stronger defence responses initiated at dawn, and weaker defence responses at night. ■

Hebrew class a melting pot of cultures



Cosmopolitan class: (From left) Uzair Ramjam, Dr Azila Reisenberger, Aviva Laskov and Carmel Rawhani.

Great things happen when you throw a highly diverse group of students into a small language class.

Dr Azila Reisenberger and Aviva Laskov told *Monday Paper* they have witnessed a unique bonding taking place between the students taking the Hebrew Intensive class this year.

"This semester we had five students, each from a totally different background - one is a progressive Jew, one an aspiring missionary, one is a Muslim, one is a Baha'i and one an orthodox Jew," said Reisenberger.

"They would not have met in any other place. They have now studied together for the whole year - and have become an unbelievably close group."

Said Laskov: "It's a strange and wonderful situation. Hebrew Intensive is a course for absolute beginners. In the old days, only Jewish people or Christian students who wanted to read the Bible in the original language would learn Hebrew.

"The sense of camaraderie among these students - each with their own

reasons for studying Hebrew - has been unique."

The students worked closely together on orals and met regularly to practise the language.

"They have become such good friends and learnt about each others' cultures and religions, and have even had 'meals of peace' together," Laskov said.

"They would meet in the corridors and speak Hebrew. It didn't take too long before they were speaking and analysing poetry in Hebrew together. These are people who, 26 weeks ago, did not know what the Hebrew font looked like, or that Hebrew is written from right to left.

"They said that not only was it the class in which they learnt the most effectively, but the one in which they learnt the most about life."

Student Carmel Rawhani, who describes herself as half Arab and half Iranian, chose to study Hebrew because she wants to pursue a career in international relations.

"I lived in the Baha'i centre in Israel when I was younger and always wanted to learn Hebrew. I am neither Jewish nor Muslim so am not a solid stereotype, and have a neutral take on things," said Rawhani, who is fascinated by Middle East politics.

Rawhani described the course as "a lot of fun. I loved the small class size. We were like a family."

Uzair Ramjam, who has also studied Arabic, said it was fascinating to study the differences between the two languages.

"Thanks to the small classes, we got to know each other and our different cultures," said Ramjam, who intends to go into either linguistics or law.

The other three students in the Hebrew Intensive class are Veronique Kruger, Jacquelyn Maris and Debra Orolowitz.

"This is a great example of UCT bringing people together in the great South African melting pot," said Reisenberger. ■

Wheelchair-bound student chalks up second degree

When Chris Day graduates with his MSc (Eng) on 13 December, it will be the culmination of a long and arduous journey to fulfil his dream.

Day, who is wheelchair-bound as the result of an accident while working as a courier in London in 2000, will be capped by his mother, Susan Batho, who is secretary to the Head of Department of Mechanical Engineering.

This is Day's second degree earned against the odds - he obtained his BSc (Eng) in 2007 at UCT, when he was capped by his mother for the

first time.

Day did his master's with Professor Chris Redelinghuys, specialising in aerospace. He currently works for a small company in Cape Town which designs and manufactures custom machinery, mostly for the mining sector.

On the challenges of being a student in a wheelchair, Day said: "It was a bit of a struggle access-wise, being on the side of the mountain, but any problems with venues were quickly resolved. I stayed in Smuts during my undergrad years, which was convenient, and staying off-campus was only possible due to

the shuttle service provided by the Disability Unit, for which I applaud them greatly."

Day was a later starter at university, beginning his studies at 26.

"So perhaps my age gave me enough distance to not be greatly affected by the physical disparity. Also, I'd lived alone for about 18 months before studying full-time, so had come to some kind of peace with life."

Day said he would like to get some experience and accrue some savings in order to work in a circuit car-racing team.

He is delighted at the prospect of being capped by his mother.

Day's mother, too, is thrilled to be capping her son for the second time.

"I am excited for him. So much has happened in his life. He's done it himself. His girlfriend, Marcelle Lorenzo, has been a pillar of strength and the reason for his blossoming. I am really proud of him for persevering." ■

By degrees: Susan Batho will cap her son, Chris Day, for the second time when he gets his MSc (Eng) degree on 13 December.



Plea for interpreters shouldn't fall on deaf ears

YUSUF OMAR

Lisle Lourens is in line to become the first person with a hearing impairment to graduate from the Advanced Certificate of Education (ACE) course offered by UCT's Schools Development Unit (SDU).

Lourens, a mathematics teacher at De la Bat School for the Deaf in Worcester, was born partially deaf. At the beginning of this year she lost all hearing.

Coming to UCT, then, proved to be a wise decision.

UCT is the first institution to arrange for an interpreter to help her through the courses. For this, she says, she is very grateful.

Previous studies had proven difficult because she had to go it alone, with no interpreter to aid her.

Lourens heaped praise on UCT's ACE programme. It has enabled her to make mind-set changes that will help her become a better teacher, she believes.

Of course, the programme presented its own challenges.

A native Afrikaans speaker, she



Lisle Lourens (left) will be the first deaf candidate to graduate from the Advanced Certificate of Education programme.

found it difficult to lip-read the lectures taught in English.

She credits her lecturers for helping her arrange an interpreter, as well as for providing her with written notes if there was anything she didn't understand.

"They were very good to me," she says. "I depended a lot on my interpreters."

Lourens also thanked fellow students for writing and sharing notes with her.

With UCT having launched its pioneering disability policy in October, Lourens says that persons with disabilities still face obstacles to equal access in the workplace.

"Deaf people have a lot of chal-

lenges. People don't understand deafness," says Lourens. "Most information is not deaf-friendly, like TV, radio, etc. We need more interpreters."

The SDU's Gary Powell, who lectured Lourens on the ACE course, waxed lyrical about her, commending her work ethic and effective teaching style.

"When she teaches, she focuses on the content," he says. "You find with some teachers that they get lost in the metaphors. Sometimes the mathematics gets lost in the conversation, but she remains focused."

Catering for someone who couldn't hear out of a class of 54 also forced Powell and his colleague Kaashief Hassan to rethink their lecturing style. Language use and positioning in the classroom became crucial aspects to consider.

"It was a learning experience for us, certainly," he says.

Lourens came third in the class, and Powell is clearly immensely proud of his student.

"Lisle is definitely an example to us all," he says. ■



Unprecedented scores: Jazz musician and honours student Darren English.

Rhythm and meaning in perfect English

YUSUF OMAR

Jazz, said French artist Henri Matisse, is rhythm and meaning. American musical legend Thelonius Monk, on the other hand, claimed that he didn't have a definition of jazz:

"You just know it when you hear it."

And the examiners for UCT music student Darren English's Honours recitals certainly heard it.

The honours music student blew the judges away as he chalked up unprecedented scores of one hundred percent for his performances, which included renditions of jazz icon Dizze Gillespie's *Bebop* and Ray Noble's *Cherokee*.

News of his perfect scores was even sweeter music to the pace-

setting trumpet player's ears because, soon after, he was notified that his honours dissertation had been passed with distinction.

He describes his surprising relaxation on stage as he performed the record-breaking routines.

"There was a free-ness about it," he recalls. "I thought I'd be tense."

Then his face lights up as the adrenaline from that night pumps through his veins once more.

"We had fun," he beams. "We klapped it!"

The 21-year-old English's talent has not gone unrecognised. Monday nights spent jamming at jazz club Swingers have seen him forge lasting relationships with luminaries such as Alvin Dyers and Nicholas le Roux. ■

Train nurses to curb TB, says student

Somewhere in the world, someone is infected with TB every second, with a death from TB occurring every 15 seconds. South Africa has the highest prevalence of TB in the world, the flame of infection fanned by the parallel HIV epidemic.

One out of every three of those infected is a child.

So a study on nurses' experiences of performing the induced sputum procedure – getting a sputum sample by making children cough, in this case by getting them to inhale a salt-water (aka a hypertonic saline) mist – to diagnose childhood TB, research conducted by graduand Washiefa Isaacs, will prove useful.

Isaacs, who graduates this week with a master's in nursing sciences, is a research co-ordinator at UCT's School of Child and Adolescent Health, based at the Red Cross War Memorial Children's Hospital, and her project forms part of an international tuberculosis diagnosis study funded by the American National Institute of Health. The induced sputum procedure was pioneered under the guidance of Professor Heather Zar at Red Cross Children's Hospital, and has proven to be an effective method to diagnose childhood TB.

Microbiological confirmation with identification of drug resistance is increasingly important in the context of an emerging drug-resistant tuberculosis epidemic.



Empowered: Washiefa Isaacs believes that training nurses in sputum induction could help the early diagnosis of tuberculosis in children.

The induced sputum procedure was introduced in 2009 to replace the gastric lavage, a process that involved passing a tube into the stomach via the mouth or nose, usually requiring that children be admitted to hospital for two to three days. It's considered quicker, easier and safer than the lavage.

For her research, Isaacs first trained registered nurses working permanently in a secondary paediatric hospital on the new procedure, until they were comfortable performing it.

Then she used a demographic questionnaire and 'semi-structured' interviews with the nurses to look at

the roles of mothers and caregivers in the procedure, and to assess and monitor the diagnosis.

Isaacs further investigated the importance of teaching and training, the costs saved on the procedure, and how the new system controls the spread of infection.

The findings were encouraging, she observed.

The new procedure boosted the confidence of nurses and empowered them, as they felt more involved in the diagnosis and not just as if they had to take orders from the doctors, Isaacs found. The nurses also passed on that knowledge to fellow nurses and to mothers and caregivers. ■

Serah Kimani's poster title is a tongue twister: *Unexpected reactions resulting from mutating catalytic residues in an amidase reveal the role of the catalytic unit*. 'Unexpected' says it well, though.

A doctoral student based in UCT's Electron Microscope Unit and the Department of Molecular and Cell Biology, Kimani and unit director Professor Trevor Sewell were trying new approaches to work out the mechanisms of an enzyme known as amidase. While they are useful as biocatalysts in the synthesis of fine

Poster attracts international attention

chemicals and pharmaceuticals, not much is understood about the catalytic mechanisms of amidases, explains Kimani, who graduates this week.

So they mutated each one of the amidase's active site residues, which are the amino acids directly responsible for the catalysis in the enzyme. Then they reacted the mutated enzyme with known substrates – molecules on which the enzyme acts

– and, finally, looked at the results using mass spectroscopy and high-resolution crystallography.

Conventional wisdom, says Sewell, suggested that they would see only one derived biochemical compound, or covalent intermediate, known as a thioester. Instead they found two additional intermediates that do not occur in the natural enzyme. From these observations they

then deduced the enzyme's mechanism.

As expected, their approach has raised some questions. Kimani and Sewell would also really like to observe how these unexpected intermediates are actually formed, but the difficulties they encountered with doing this experimentally have encouraged them to tackle the problem using theoretical quantum mechanical methods.

For now, though, the work has captured the attention of the biochemical world. Notably at the XXII Congress and General Assembly of the International Union of Crystallography in Madrid, Spain, in August, a large international conference where Kimani was named the winner of the Research Collaboratory for Structural Bioinformatics Protein Data Bank (or RCSB PDB) poster prize.

"I had to answer a lot of questions and do a lot of explaining," she recalls. ■



Cross disciplinary: Phillie Mbatha (left) and Mayra Pereira may be based in different faculties, but they've harvested the fruits of working together.

Marine science prizes for duo

It's not often that a humanities student and a science student walk away with prizes from the same conference.

But that's exactly what master's students Phillie Mbatha and Mayra Pereira did when they took first and second prizes respectively for their presentations at the 7th biennial Western Indian Ocean Marine Science Association (WIOMSA) Symposium, held in Mombasa, Kenya recently.

Although both pursued their studies in the Department of Environmental and Geographical Science, Mbatha is located in the Faculty

of Humanities, and Pereira is in the Faculty of Science. They were supervised by Dr Maria Hauck and Dr Rachel Wynberg of the Environmental Evaluation Unit, as part of a wider project on sharing benefits from the coast.

For her presentation, Mbatha (who graduates with distinction on 14 December) focused on institutional arrangements for benefit sharing in coastal communities involved in fisheries and mining in South Africa. Pereira, who graduates on 16 December, looked at sharing benefits from tourism with coastal communities in Mozambique. ■



Sibling success: Dr Paul Barendse will cap his sister, Jackie, when she graduates with a Bachelor of Business Science and Marketing degree.

Barendse siblings keep it in the family

When Dr Paul Barendse, senior lecturer in the Department of Electrical Engineering, caps his sister this week, it will mark her triumph over what began as a bumpy university career.

Jackie Barendse (23) will graduate as one of the top students in her Bachelor of Business Science and Marketing class.

She will be moving to Durban in 2012 to take up a position in Unilever's graduate programme.

When Jackie started her studies she was falling behind badly, particularly in maths.

"Coming from a high school which was not strong on academics, I struggled with the transition to university."

After a great deal of soul-searching, Jackie deregistered. She picked up her studies a semester later, having decided to do the course over five years.

As part of UCT's Education Development Unit programme, she received a great deal of extra support.

"They were like a little family to me."

Jackie plans to work on different aspects of marketing at Unilever.

"I'm excited about starting my career. In the beginning I kept thinking, why am I here? I'm not good enough. Now I see it was all worth it."

Jackie heaped praise on her brother, saying she is thrilled he will cap her on her big day.

"I am very close to him. He's been so supportive."

"I'm an extremely proud brother," Paul said. "Even though Jackie got off to a bumpy start at UCT, she rose above the challenges to excel academically."

"This is a true testament to her character." ■

Waste not, want not: PhD presents solutions for treating municipal wastewater

At high school, David Ikumi took part in engineering-related projects, particularly water treatment exercises, out of curiosity. But that curiosity soon turned into a deep love for the subject, motivated mainly, he believes, by the role that water treatment holds in society.

"I'm glad to have chosen the wastewater treatment project as a subject for my postgraduate studies (water quality engineering was his topic for his master's, which was upgraded to a PhD) because it offered a great opportunity to contribute to the much-needed solutions for averting the current water crisis," comments Ikumi, who graduates with a PhD in civil engineering for wastewater treatment on 16 December.

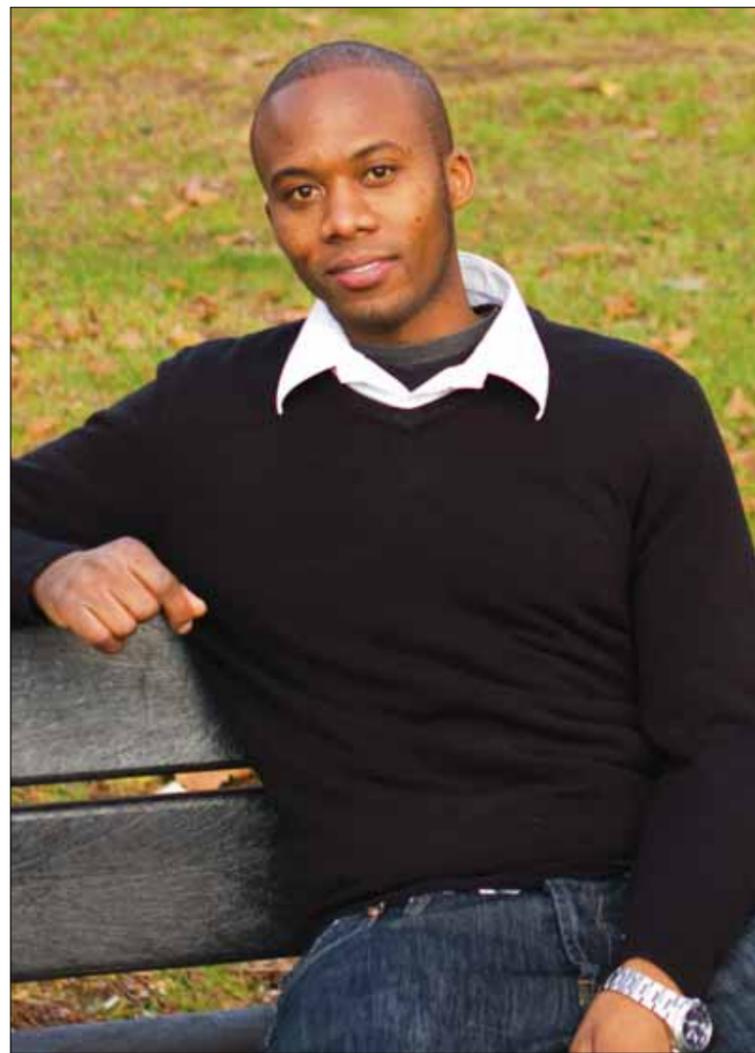
Supervised by Professor George Ekama, the Kenyan-born Ikumi's project was to develop a three-phase (liquid-gas-solid) model for municipal wastewater treatment plants that could remove organic material, nitrogen and phosphorus from wastewater.

If it pans out, the model could be used to make cost-effective design decisions in choosing wastewater treatment plant layouts and the sizing of the equipment used in the process, Ikumi explains.

Furthermore, it could ensure the most optimal operation of wastewater treatment plants at minimum operation costs and lowest energy consumption, while maximising the recovery of resources (such as phosphorus) from the wastewater, and the improvement of effluent (or treated sewage) quality.

In addition, the model could monitor the various systems of the plant and predict their responses to various projected conditions, avoiding future breakdowns.

Ikumi and his team have started (at laboratory scale) a set of interconnected wastewater treatment plant (WWTP) unit operations that mimic three typical WWTPs. Via mass balances they also tracked all the ele-



Watershed: David Ikumi will graduate with a PhD for his work in the treatment of municipal wastewater.

ments and ions entering and exiting the plants in the aqueous, gas and solid phases.

The research team concluded that non-biodegradable organics remain the same all the way through the WWTP. They also found that with enhanced biological phosphorus removal in the activated sludge system, the phosphorus is released completely differently in aerobic and anaerobic digesters. In anaerobic digesters, for example, a large proportion of the released phosphorus separates as the mineral struvite,

which affects operations with and control of the phosphorus.

The research was technically tricky, Ikumi noted.

"The project was quite demanding, with a large experimental set-up comprising three laboratory-scale wastewater treatment plants, and required us to put in a lot of late hours when testing these systems and calibrating their predictive models."

Ekama's "great supervision", coupled with the hard work put in by his fellow students, made the project a success, Ikumi observed. ■

Michaelis graduands go public



Big picture: Andrew Walters' series of photographs, titled Clarke Estate, will be among the works on show.

The 48 students expected to graduate from UCT's Michaelis School of Fine Art this week have exposed their work to public scrutiny at the annual graduation exhibition, which runs from 7 to 17 December this year.

The exhibition, which has become a highly anticipated fixture on the Cape Town arts calendar, features final-year work by students completing their bachelor's degrees

and postgraduate diplomas in fine art. This year does not disappoint, with a mix of painting, sculpture, new media, print and photographic works. Most are for sale.

"The show, a culmination of so many years of work and learning, is for us as much a beginning as an ending," says one student, "the beginning of a journey that will extend beyond the borders of a finite degree."

The exhibition takes place at the Michaelis School of Fine Art, Hiddingh Campus, 37 Orange Street, Gardens, open Tuesdays to Saturdays from 11h00 to 16h00.

For more information contact Nadja Daehnke, curator of the Michaelis Galleries and curator and organiser of this exhibition, on 021 480 7170, 082 316 5272, or nadja.daehnke@uct.ac.za, or visit www.michaelis.uct.ac.za. ■

First registrar in family medicine graduates

Dr Gisela Wenzel Smith's graduation this week will mark a milestone moment for the Division of Family Medicine at UCT.

Smith will become the first to graduate from the division's new registrar programme in family medicine.

The Division of Family Medicine started the four-year programme in 2007, after family medicine was promulgated as a new speciality.

The programme trains family physicians, who have a vital role to play in the care of patients and communities at a district level.

As part of their training, doctors rotate and gain skills in a variety of specialist disciplines relevant to care at the district level. Emphasis is placed on comprehensive health care using a patient-centred, bio-psychosocial approach.

Specialist disciplines include general surgery and orthopaedics, obstetrics and gynaecology, anaesthetics,

internal medicine, surgical specialities, psychiatry, emergency medicine, paediatrics, ARV clinics and general care of in-patients at district hospitals and ambulatory patients at community health centres.

Interest in the course is picking up, Smith said. This year there are six registrars in her year (including herself), five in the second, and eight in the first year of the programme. In 2012 nine new registrars will start their training.

Smith's research showed that appropriately trained generalist doctors can give safe analgesia and sedation to allow minor procedures to be performed painlessly on patients at a district hospital.

The medical graduate from Aachen, Germany, spent part of her sixth year of medicine as a student intern in Cape Town in 1995. It was here she met husband Peter.

Unable to register her medical qualifications in South Africa, the

couple moved to the UK, where Smith spent three years in a vocational training scheme, which trains doctors for general practice.

Two children later, in 2003, they moved back to South Africa, where Smith worked as a principal medical officer in district hospitals in KwaZulu-Natal and in the Western Cape.

"In 2009, as I approached 40, I decided to formalise my South African learning experience and specialise in family medicine. UCT exempted me from two years of training because of my prior experience and my UK qualification," Smith said.

For Smith – who sees "patients as people and not as diseases", and who believes health is closely linked to social inequality – family medicine was a "natural choice".

"Having family medicine registered as a speciality is a hugely exciting development. I thoroughly enjoyed the course." ■



First up: Dr Gisela Wenzel Smith will be the first to graduate from the Division of Family Medicine's new registrar programme in family medicine.

Winning projects make a difference

The work of the Southern Africa Food Lab (SAFL) and the Rural Women's Action Research Project (RWAR) are a good match for UCT's social responsiveness objectives, in both letter and spirit.

Their research not only tackled two critical and complex social issues – food insecurity and the effects of customary law and the Traditional Courts Bill on women in rural South Africa, respectively – but did so with energy and sensitivity, and offered solutions to boot.

This work has won the SAFL and the RWAR this year's Distinguished Social Responsiveness Awards, valued at R30 000 each. The awards were established by vice-chancellor Dr Max Price to promote the university's commitment to social responsiveness as an important institutional activity, and are open to staff whose activities benefit not only UCT, but also an external community.

At the launch of the latest Social Responsiveness Report on 18 November, Associate Professor Ralph Hamann, SAFL co-founder and chair of its steering committee, discussed how his team pulled together key role-players in the food sector, including



Community commitment: Distinguished Social Responsiveness Award winners (from left, front) Assoc Prof Ralph Hamann of the Southern Africa Food Lab, and Dr Sindiso Mnisi Weeks, Assoc Prof Dee Smythe, and (left, back) Aninka Claassens, all of the Rural Women's Action Research Project, with VC Dr Max Price.

farmers, retailers, manufacturers, activists, academics and consumers – some of whom don't always see eye to eye.

"The big part of the food insecurity problem is that everyone has different perceptions of what the problem is and of what the underlying causes are," explains Hamann, research director at UCT's Graduate School of Business.

So part of the SAFL's activities included joint visits to different sites

along various food value chains, from production to distribution, allowing participants to get a first-hand sense of different parts of the system.

The purpose was to create a platform to exchange ideas, better understand perceptions, and identify innovations that could have ripple effects on the "wicked problem" of food insecurity.

Hamann described the project as an

illustration of the role that universities can play as a "boundary organisation", acting as knowledge broker, convener, translator and facilitator.

In turn, the Rural Women's Research Project, run by the Law, Race and Gender Research Unit (LRG) in the Faculty of Law, provides support to rural people (especially women) who live under systems of customary law and traditional governance, explains LRG director Associate Professor Dee Smythe.

The project builds partnerships with rural community-based organisations, non-governmental organisations and other academics, to investigate issues of concern to rural women in Msinga in KwaZulu-Natal, Keiskammahoek in the Eastern Cape, and Elim in Limpopo – areas with different cultures, histories and institutional arrangements. The project focuses on issues of land rights, power relations and accountability.

One of the problems that has come to light through rural consultation meetings is the resurgence of traditional levies demanded from poor people, says Aninka Claassens, RWAR project leader.

"If people don't pay those levies,

traditional leaders refuse to give them the proofs of address that are necessary in applications for identity documents and pension and child grants," Claassens explains.

According to Dr Sindiso Mnisi Weeks, a senior researcher in the RWAR, the project found that many ordinary rural people were unaware of the pending Traditional Courts Bill, which has been drawn up in consultation with traditional leaders, but without any consultation with those it affects.

The bill centralises power to traditional leaders, enabling them to make and apply customary law unilaterally, at their whim. It also does not assure women of self-representation, and thus does not adequately protect women against property grabbing, should their husbands die.

Together with others, the team mobilised stakeholders and lobbied against the passing of the bill in its current state, resulting in its withdrawal to allow more time for consultation in 2012.

The project's approach, adds Smythe, provided an opportunity to build models of practice that are inclusive and participatory. ■

Ten ways to have fun while learning this summer

The 62nd Summer School at UCT is once again presenting lectures and courses for your enjoyment on a wide range of topics. Whether you like to dip your toes or to plunge into deep water when exploring and gaining new knowledge, there are many opportunities at Summer School 2012.

For 14 summer days in January 2012, there will be 57 topics to tempt you: from listening to the sounds of Beethoven or the quarks of quantum physics, from learning Mandarin or

portrait painting, to understanding music and mastering social media.

Summer School is designed to offer something for everyone, so if you have an hour, a week or 15 evenings free, come and fill them with learning. There are lecture series (two to five lectures over several days), lunch-time talks (one-hour lectures), practical courses (a number of two- to three-hour sessions in art, writing, social media and maths) and introductory courses in isiXhosa, Italian and Mandarin.

The new venue for Summer School – the Kramer Building on Middle Campus – is a welcoming space: you can stroll up the historic Japonica Walk from the Rondebosch Main Road; and between lectures, recline before David Brown's monumental sculptural tableau while drinking coffee with fellow Summer School students. You may also find an interesting documentary or film companion piece to the courses you are attending in the free Extra programme.

The Summer School runs from 16 to 27 January 2012. It is advisable to pre-enrol for courses, as they do sell out quickly. No entrance qualifications are required.

For more information on Summer School and the Centre for Open Learning, email ems@uct.ac.za, or visit www.ems.uct.ac.za. UCT Summer School is also making active use of social media – find us on Facebook and Twitter @UCTSummerSchool. ■

