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 pp 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).

In all, another remarkable year for UCT.
African leadership award to Tutu for global activism

I 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-right 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.

Detective Inspector Makhubu Banda 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 held 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.”

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 1979, 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.”

Honour for top historian

Honour: Black Sash stalwart Di Oliver; rewarded for her activism and work towards justice and peace.
HONORARY DOCTORATES FOR BURTON, POTTER

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 event. 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 with her family to South Africa. Agasth 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 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 1993 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 of Women; 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 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.

Dr David Potter has been hailed as a great inventor and entrepre neur, 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 matemati cal physics at Imperial College, London. He worked as an academic in the 1970s, teaching at the University of London and the University of California.

In 1980 he founded the software company Prion, 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”). Prion’s first real success was with a flight simulation game, but more impor tantly, 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 partner ship 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 serv ices 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 engi neering 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 oppor tunity to motivated and academi cally excellent individuals to use their education for the betterment of South Africa and civil society. So far more than 40 master’s and doc toral 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 disposses sion,” 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

YUSUF OMAR

UCT’s Centre for Transport Studies, based in the Department of Civil Engineering, has completed doctoral work to come out of the university. Students and the department are excited with the achievement, and the new knowledge that is being produced.

Edward Beukes, who receives his PhD this week, showed in his thesis that some Cape Town roads are giving an interesting picture of the roadworthy state of the roads. Beukes, supervised by Dr Richard van Zyl-Smit, carried out research on the roads, which are typical for road planning, which requires 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 explains. “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 Mariam Vandereycken of the Centre for Transport Studies, based in the Department of Civil Engineering.

The project was sponsored by the Mellon Foundation, and, for ease of use, is a ‘mishmash’ of transport modes on Cape’s roads, because 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.

Beukes believes that the data 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.

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

YUSUF OMAR

T his week UCT’s Centre for Education 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. Mungai, who was the first sponsored master’s student graduates, describes the relative suitability of five transport modes – car, bike, public transport, freight and pedestrian – along the three roads.

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 International Planning Department, has reason to be doubly proud.

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

“Both have a passion for teaching,” says Favish.

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 teaching at ID Mkhiza High School in the impoverished Cape Town township of Gugulethu.

“Keiran is very strong about making a contribution to improving education, especially in poor areas,” says Favish.

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

“Tess also worked at CET during her 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.”

Keiran’s work was supervised with a postgraduate Bachelor of Law (LLB). Tess will begin articles with Johannesburg firm Webber Wentzel in the new year. In China, she was an intern at Tsiba College.

“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.”

“Tess, who also tutored at CET, 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.”

Professors Dick Ng’ambi, explains why students supervised by the CET enjoyed a useful head start.

“Students for Law and Social Justice,” says Favish, “are educational technology practitioners, educators and researchers. CET staff continue to research and publish widely, and some are rated by the National Research Foundation.”

Medicine’s magnificent seven

YUSUF OMAR

T his week, UCT’s Department of Medicine will graduate the most PhD students it has ever graduated 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.

The six clinicians are Dr Graeme Zyl-Smit, Sarin Somers is the non-clinician in the group. The new PhDs are expected to increase the number of PhDs in medicine.

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

They are now finally earning the academic right to use the title ‘doctor’! Mayosi proudly proclaimed.

GRADUATION NEWS

4 Monday Paper

12 December 2011 – 13 February 2012
Vol. 3 #20

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Medical students and the department are excited with the achievement, and the new knowledge that is being produced.

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Medical students and the department are excited with the achievement, and the new knowledge that is being produced.

“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 Meintjes, Dr Keren Middelkoop, Dr Mpho Ntokele, Dr Ian Ross, Dr Masilokane Sethedi 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 athletics, 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 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 is that a feature of the plant circadian clock?”

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

“So the circadian clock of plants enables them to anticipate 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 dusk.

Hebrew class a melting pot of cultures

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

Dr Azila Reisenberger and Aviva Laskov told Mondays 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 unbearably close group.”

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 Ramjan, who intends to go into either linguistics or law.

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

“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 Reddelinghuis, 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, Marcella 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 Rey School for the Deaf in Worcester, was born partially deaf. At the beginning of this year she lost her 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 found it difficult to lip-read the lectures taught in English. She had to hear her lectures for helping her arrange an interpreter, as well as for providing her with written notes if there was anything she didn’t understand.

“You were very good to me,” she says. “I depended a lot on my interpreter.”

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 challenges. 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.

**Train nurses to curb TB, says student**

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

“They were very good to me,” he recalls. “I thought I’d be tense.”

Then his face lights up as the adrenaline from that night pumping 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.

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.

**Sarah Kimani’s poster title is** A temporary twister: Unexpected reactions resulting from mutating catalytic residues in an amidaise 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 chemicals and pharmaceuticals, not much is understood about the catalytic mechanism 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 spectrometry 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 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 biochemistry 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.
I t’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 Phihile 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 (WIOOMSA) Symposium, held in Mombusa, Kenya recently.

Pereira, who graduates on 16 December, looked at sharing benefits from tourism with coastal communities in Mozambique. Mbatha is in the Faculty of Humanities, and Pereira is in the Faculty of Science. They were supervised by Dr Maria Hanck 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, rose above the challenges to excel academically. But that's exactly what master's students Mbatha and Pereira did when they took first and second prizes respectively for their presentations.

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.”

Ekaama’s “great supervision,” coupled with the hard work put in by his fellow students, made the project a success, Ikumi observed.

Marine science prizes for duo

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,” Ikumi explained.

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 project a success, Ikumi observed. Most are for sale.

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

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 Bachelors 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.

Barendse siblings keep it in the family

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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 specialty.

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-psycho-social approach.

Specialist disciplines include general surgery and orthopaedics, obstetrics and gynaecology, anaesthesiology, 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 anaesthesia 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 for many years registered as a specialty 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.

Ten ways to have fun while learning this summer

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. They are 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 do 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 Award, 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 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, ranging 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, 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 Aminka Claassen, 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,” Claassen explains.

According to Dr Sindiso Mhizi 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 affected.

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.

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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 62nd Summer School at UCT is once again presenting lectures and courses for students 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 were more than 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 Tree or go down the School – the Kramer Building on Middle Campus – is a welcoming space: you can stroll up the historic Japonica Tree or go down the walk from the Rondebosch Main Gate; you can try the Lagoon Café; you can walk through the Lappie Daggie and the Kramer Building has been beautifully restored.

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.ema.uct.ac.za. UCT Summer School also has a Facebook page and a Facebook page and a Twitter profile.

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