



UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

2017
A YEAR IN REVIEW

VISION

UCT is an inclusive and engaged research-intensive African university that inspires creativity through outstanding achievements in learning, discovery and citizenship; enhancing the lives of its students and staff, advancing a more equitable and sustainable social order and influencing the global higher education landscape.

MISSION

UCT is committed to engaging with the key issues of our natural and social worlds through outstanding teaching, research and scholarship. We seek to advance the status and distinctiveness of scholarship in Africa through building strategic partnerships across the continent, the global south and the rest of the world.

UCT provides a vibrant and supportive intellectual environment that attracts and connects people from all over the world.

We aim to produce graduates and future leaders who are influential locally and globally. Our qualifications are locally applicable and internationally acclaimed, underpinned by values of engaged citizenship and social justice. Our scholarship and research have a positive impact on our society and our environment.

We will actively advance the pace of transformation within our university and beyond, nurturing an inclusive institutional culture which embraces diversity.





FROM THE NEWSROOM

In selecting content for *2017: A Year in Review*, the newsroom team was struck by how the national tableau continued to shape both our individual and institutional journeys.

Ongoing uncertainty around the government's plans for fully funded higher education reflected in protests and disruptions to the academic enterprise for the third year in succession. Despite this, students and staff banded together to successfully complete the academic year.

The national drought was felt more acutely in the Western Cape, paradoxically bringing attention to the robust body of water and sustainability research being undertaken at the university. Our researchers have taken the lead to assist authorities and planners to manage the crisis and ensure a water-sustainable future.

In this same spirit, our academic departments continue to work with community partners across Cape Town to produce locally relevant research. In seeking to go beyond the traditional reach of the

university, for example, the GSB established a satellite campus in Philippi to better serve the surrounding communities.

The university also achieved some remarkable successes in teaching and learning – with a focus on catering for the multilingual diversity on campus – and continued to incorporate digital technologies that enhance the teaching and learning experience.

As a collective, these national and local challenges held up a mirror to what we value as an institution: development through research, social responsiveness, excellence in teaching and learning, and a commitment to deeper transformation. It has challenged us to continue working towards a UCT that is inclusive, diverse and welcoming: a home for all and a springboard for possibility.

While we could never give a comprehensive overview of the past year, the selected pieces in the pages that follow record some of the milestones in the institution's journey through 2017, and reflect a university at work in a changing world.

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*Most of the articles included in this publication are available in their original, unabridged forms on UCT's news website www.news.uct.ac.za.



An unwavering commitment to academic excellence

FOR THE LAST THREE YEARS, we have been forcefully challenged by student movements across the country to address shortcomings in the higher education sector. A protest that began with the removal of the Cecil John Rhodes statue from the University of Cape Town (UCT) in 2015 has evolved to confront much wider national and societal issues. These include decolonising the curriculum, transforming the professoriate, addressing issues of student mental health and sexual violence, and seeking government support for affordable higher education. UCT has made transformation a priority across the institution, permeating the university's core functions of teaching, learning and research.

In traversing this turbulent period, UCT has maintained its high academic standing thanks to the dedication of staff members who have demonstrated remarkable resilience in responding to many challenges. For example, staff members worked through the 2016 year-end vacation to provide catch up teaching in January 2017, and to organise and mark deferred exams in January and February 2017, accommodating a total of 16 046 students whose studies were disrupted by some protesters in late 2016.

At the end of the 2017 academic year, when UCT faced the possibility of disruption during final exams, staff and students showed their resilience once more. The university set up a marquee on the rugby field with an extensive exclusion zone around the tent to prevent people from disrupting the exams.

I would like to take this opportunity to thank my colleagues and the students for their perseverance and flexibility in confronting these challenges.

Against the backdrop of these protests, we celebrated many important milestones in 2017. Here are just a few:

Helping students to succeed

- 2017 ended with many questions about President Jacob Zuma's announcement of government bursaries to cover the full cost of higher education for poor and working-class students. Provided that it is sustainable in terms of government budgeting, this will prove to be a huge benefit to poorer students and to the universities, and should address the most important cause of the vociferous student uprising of the last three years. While it does not solve all the problems of missing-middle students, specifically for the students between household incomes of R350 000 and R600 000, other solutions are being piloted and UCT has a financial aid system in place for such students - drawing heavily on donor support. Ashley Francis, UCT's executive director of finance, gives a glimpse into fees on pages 6 and 7.
- In 2017 UCT provided free laptops for the first time to 964 first-year students on financial aid. This programme will be rolled out every year to first-years on financial aid, so that eventually all students will have access to laptops - an essential tool for access to digital teaching resources and for succeeding at university in the digital age.
- Mental health issues, particularly anxiety and depression, are a serious and rapidly escalating problem on campuses worldwide. Researchers across the world are still trying to understand this phenomenon. Meanwhile, we need to dramatically increase the mental health services available. The Development and Alumni Department secured significant additional funding to boost the Student Wellness Service (SWS), which brought almost immediate improvements to student support, including 24/7 crisis support for students in residence.

(The new director of the SWS, Dr Memory Muturiki, writes about this on page 11.)

Following the establishment of a Mental Health Task Team in 2016, a draft Student Mental Health Policy was developed and discussed in detail in 2017.

- The UCT Careers Service hosted its first Student Entrepreneurship Week in September, aimed at empowering students and promoting entrepreneurship as a viable career option. The Careers Service survey of 3 000 graduating students (the class of 2016, graduating in May 2017) revealed that 43.71% were already employed upon graduation and 36.63% planned to study further.
- UCT completed the Classroom Renewal Project: a five-year, R102.6 million initiative to renovate and upgrade 90 centrally bookable classrooms across campus. Prominent improvements included installing document cameras, upgrading sound systems and installing custom-designed motorised lecterns. Accessibility also played a role, with hearing-impaired students benefitting from the induction loop technology in 37 of the larger classrooms. The completion of the project also means that all lectures in these classrooms will be automatically recorded and available to students within 24 hours to review, improve their notes, catch up sections they may have missed or not understood - a critical intervention in improving students' success.

Applying world-class expertise to the water crisis

UCT academics have been consulted about the Western Cape's drought on a regular basis by governments and the media. UCT established a Water Task Team in July 2017



to help guide our response to the immediate circumstances, but also to consider how UCT can become a water-sensitive campus in the long term. Many students and academics are undertaking research to contribute to these initiatives. One such solution in the Department of Chemical Engineering has resulted in the world's first full-scale working unit for eutectic freeze crystallisation, which yields clean water from mine waste water. Read more about water research on pages 34 and 35.

Strengthening ties with our Cape Flats neighbours

UCT now has a physical footprint on the Cape Flats with the launch of the Graduate School of Business's MTN Solution Space in Philippi Village in July. This brings the university's business resources close to the communities of Philippi, Nyanga, Gugulethu, Mitchells Plain and Khayelitsha.

The Schools Improvement Initiative celebrated its fifth anniversary as well as the first cohort of UCT graduates from the 100UP programme, which seeks to address the problem of under-representation at UCT of black students from Western Cape communities. A total of 1 032 matriculants exited UCT's 100UP and Gill Net programmes between 2013 and 2017 from Khayelitsha and Mitchells Plain. Of these, 851 enrolled at a tertiary institution and just over half (446) were admitted to UCT.

Innovations to improve graduate attributes

In March 2017 UCT formally launched the Hasso Plattner Institute of Design Thinking - known as the d-school - the third d-school funded by the Hasso Plattner Foundation (the others are at Stanford and Potsdam universities). The aim of the school is to

teach a methodology of creative thinking which also includes bringing together different disciplines.

Influencing global thinking

Through our research publications in international journals and in partnership with researchers all over the world, UCT research continues to contribute to global knowledge. In 2017 UCT researchers published 3 514 journal articles, books, book chapters and conference papers (as indexed by the world's largest databased peer-reviewed research literature). Of these, 62% were written in collaboration with researchers in other countries. More than 90% of the journal articles were published in international journals

And 50 years after the world's first successful heart transplant, an all-women team of researchers at UCT's Hatter Institute for Cardiovascular Research in Africa, led by the dean of Health Sciences Professor Bongani Mayosi, helped to identify a new gene that is a major cause of sudden death among young people and athletes.

We work hard to embed social responsiveness in our institutional culture at UCT. This embraces the engaged scholarship of our academic staff, the civic engagement of our students' community service, and the expert engagement of the university's professional, administrative support and service staff. Dr Russell Ally, the executive director of the Development and Alumni Department, expands on this important topic on page 12.

The work of students and staff at UCT demonstrates their dedication not only to the future success of a transformed UCT, but to academic excellence and to helping to make the world a better place for everyone.

Sincerely
DR MAX PRICE
 VICE-CHANCELLOR

NRF distinctions

In 2017 UCT again recorded the highest number of NRF-rated researchers in South Africa: 542 of our colleagues are now rated by the NRF, against 514 in 2016 and 276 in 2008.

SARChI chairs

A total of 39 (19%) of the country's SARChI chairs (South African Research Chairs Initiative) are held by researchers at UCT.

Centres of Excellence

UCT is home to two Department of Science and Technology (DST/NRF) Centres of Excellence:

- DST/NRF Centre of Excellence in Birds as Key to Biodiversity Conservation (Percy FitzPatrick Institute of African Ornithology)
- DST/NRF Centre of Excellence in Catalysis c*change (Centre for Catalysis Research)

Massive Open Online Courses (MOOCs)

Four new MOOCs were launched in 2017, bringing the UCT total up to 11 - these courses have seen 185 000 participants from about 180 countries across the globe.

Quacquarelli Symonds rankings

World University Rankings
 1st in Africa, 191st in the world

BRICS University Rankings

1st in South Africa
 1st in Africa
 19th in the World

World University Rankings by Subject

10th in development studies
 47th in geography

EXECUTIVE NEWS

Lange at the helm of teaching and learning

Associate Professor Lis Lange, former vice-rector of academics at the University of the Free State, joined UCT as the deputy vice-chancellor for teaching and learning.



LANGE STUDIED IN ARGENTINA, where she was born, and in Mexico and South Africa, where she obtained a PhD in South African history from the University of the Witwatersrand. She first came to this country following the unbanning of the ANC and other parties in 1990.

“By the time I had finished [my doctoral studies] I had fallen in love with the country.”

Lange’s curriculum vitae chronicles an impressive career. For the past decade and a half she has contributed to the development and implementation of science and technology and higher education policy in South Africa, working in different capacities at the Human Sciences Research Council, the National Research Foundation and the Council on Higher Education (CHE). She was executive director of the CHE’s Higher Education Quality Committee and acting CEO of the council.

Her research interests are the philosophy and politics of education. Her current

work is focused on the higher education curriculum and pedagogy in the context of the call for decolonising the curriculum.

Speaking in an interview shortly after taking up her post at UCT, Lange said that her goal was to raise the bar on teaching and learning.

“I would like UCT to have a teaching and learning core function that is comparable with the status of its research function.”

Before putting a vision on the table for teaching and learning, Lange said she would first consult widely with the deans, the academics and, where possible, the students.

Commenting on transformation in higher education, Lange said that while government had a responsibility to fund the sector appropriately, it couldn’t steer transformation at universities.

“Transformation doesn’t happen by decree. What needs to change is internal. The same thing applies to universities.”

She added, “I don’t believe that the state

of contestation and tension [at universities] over the past few years is just external. I think that the curriculum, the culture and the materiality of our students’ lives are very much internal issues.

“What we need from the government is that it doesn’t take decisions to undermine education and that, fundamentally, it funds higher education fully. If the country wants to go where it’s been saying it wants to for the past 20 years, its investment in higher education isn’t enough. It’s not comparable with the investment that other countries have, not only OECD [Organisation for Economic Co-operation and Development] countries. It’s less than China, less than Chile and India.”

Lange spent her first weeks in the job meeting with the deans, who now report to her in a reconfigured structure.

“I used the first two weeks to sit with every dean without an agenda, to listen and to establish their expectations. I’m also hoping that I’m going to be closer to the faculties and academics to get a sense of where they are.”

UCT’S NEW DIRECTORS



Dr Memory Muturiki took up the directorship of UCT’s Student Wellness Service (SWS) in August 2017. She has over 14 years of experience as both a clinician and manager in the public, NGO and private healthcare sectors.



Tamara Bezuidenhout was appointed as director of the Institutional Planning Department with effect from 1 September 2017. She has over 17 years of experience in the higher education sector, seven of which were spent in teaching and educational management.

Financial support

Without the generous support of foundations, trusts, corporates and individual sponsors, UCT would not be able to offer its students the exceptional financial support that it does, nor would it be able to fulfill its many obligations to the institution and the community. The following are just a few of the university's many financial supporters in 2017.

Distinguishing UCT

Underpinned by the university's Strategic Planning Framework 2016–20, the Distinguishing UCT campaign aims to advance excellence, invest in talent and realise transformation. The primary financial goal of the campaign is to grow the value of the university's endowment fund from R500 million to R1 billion by 2019.

The value of the current endowment has grown to R633 million in the last two years, thanks to the generous support received from the donor and alumni communities, including a major donation of R10 million from the Jonathan and Jennifer Oppenheimer Foundation.

As of November 2017 the Distinguishing UCT campaign has received a total of 320 donations, with the majority of these coming from individual donors (alumni and friends) in Australia, Canada, France, Germany, New Zealand, South Africa, the UK and the USA.

Neuroscience Institute

Under the Distinguishing UCT umbrella, significant funding was received specifically for the Neuroscience Institute. Over R100 million in pledges was raised, including several significant contributions from various individuals and foundations, as well as the Western Cape Government Department of Health.

In partnership with Groote Schuur Hospital, a purpose-designed facility will house Neurosurgery, Neurology, Psychiatry, Neuropsychology and Neuroimaging, all of which are active in clinical service, teaching, training and research. The facility will include an integrated, multidisciplinary clinical service to patients and will seek to pioneer novel understandings of, and treatment approaches to, disorders of the brain and nervous system.

Absa increases UCT support

A total of 250 missing-middle students will receive scholarships after a R10 million donation was handed over to the university by the Barclays Africa Group in October.

This follows an almost three-fold increase in the Barclays Africa Group's CEO Scholarship Fund, which will finance the studies of 3 000 students across Africa. The scholarship programme includes essential psycho-social support and leadership training.

The fund, now valued at R210 million (up from R80 million in 2016, which funded 2 000 students), has dedicated R35 million to universities in the Western Cape specifically.

R10 million boost from Oasis

Asset management group Oasis donated R10 million in bursaries to UCT, and the group is hopeful that this will signal the rekindling of a long-term partnership with the university.

Over the next five years, R2 million will be allocated to the university annually. First-year student orientation and support will receive R250 000; undergraduate degrees and programmes will receive R1 million; and postgraduate studies will receive R750 000.

UCT and Oasis will collaborate in selecting students who are eligible for the funding. They would likely hail from academic areas relating to Oasis's business activities.

Developing financial skills

The development of much-needed skills for the financial services sector in South Africa has been given a boost by a collaborative donation of R10 million over five years from Nedbank and Old Mutual to the African Institute of Financial Markets and Risk Management (AIFMRM) in the Faculty of Commerce.

In a further show of support, the Banking Sector Education and Training Authority contributed over R5.25 million in bursary funding to AIFMRM in 2017.

FirstRand Group

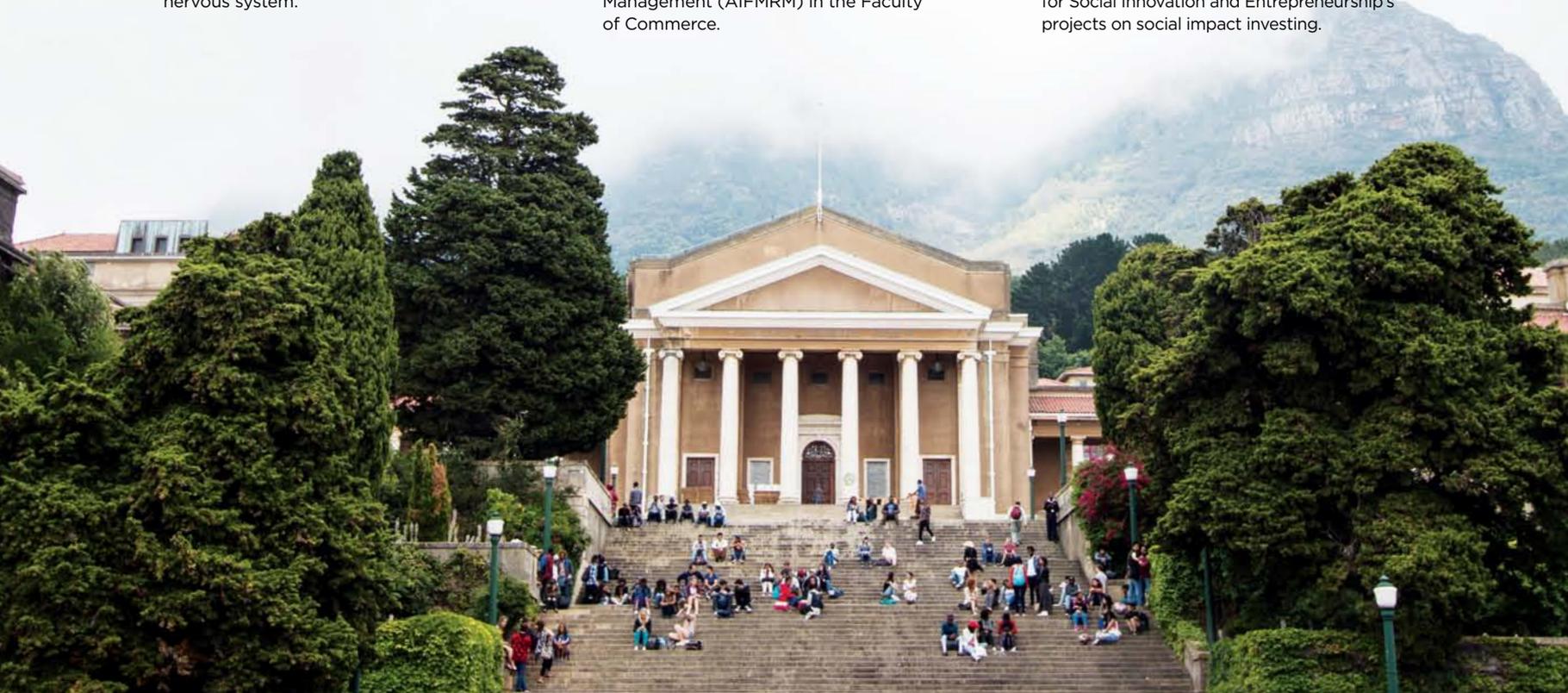
The FirstRand Group pledged more than R17 million in funding to UCT. R11.3 million was approved for the Disability Unit late in 2017, of which R3.6 million was received in 2017. R4.1 million was received from the group in support of student financial aid, while R2 million was accepted in support of the African Institute of Financial Markets and Risk Management.

These followed a donation of R10 million in emergency funding from the FirstRand Empowerment Fund, which was received late in 2016.

R10 million and more

Several other single donations of more than R10 million were received in 2017. These included the Hasso Plattner Stiftung, which continues to give to the Institute of Design Thinking and the Isisombululo Programme in the Faculty of Health Sciences; the Ford Foundation, USA, which continues to fund projects with a strong focus on promoting social justice and good governance; and the Carnegie Corporation, which supports postdoctoral development and educational technology.

In addition to these, funding from the Andrew W Mellon Foundation promotes the development of black South African academics and students, the Elma Philanthropies Service Inc donations continue to support the Children's Institute and the African Paediatric (and Paediatric Nursing) Fellowship Programme, and the Bertha Foundation's financial support funds the Bertha Centre for Social Innovation and Entrepreneurship's projects on social impact investing.



UCT finances on a strong footing despite challenges

Ashley Francis, executive director of Finance, gives a brief overview of the university's finances for 2017.

DESPITE CHALLENGES AND UNCERTAINTIES

in state funding and disruptions to the academic year, UCT's finances emerged from the year in a stable position. Prudent financial management and firm processes for budget planning strengthened the university in 2017. The university has a promising outlook for 2018 and beyond, provided that we maintain our robust financial management policies.

We adopted four strategic goals in 2017:

- 1 to optimise, influence and innovate the university-wide business model through strategic partnerships
- 2 to achieve operational excellence
- 3 to enhance agile budgeting and reporting
- 4 to transform the department to one that is fair and equitable.

To help in achieving our goals, we set up various task teams, which included, inter alia, improved management information systems, feasibility of procurement and other finance hubs, a shared services model and improved budgeting and reporting tools.

With a dedicated team and support from the UCT community, Finance was able to complete the 2017 academic programme, collect debt and still invest in key projects.

Austerity and insourcing

UCT's austerity programme, which was instituted in 2016 with an incentive programme and early retirement options for staff, proved a tough but necessary process to control costs in the midst of a significant decline in revenue. So far UCT has saved about R100 million through the austerity process, assuming that the planned savings incorporated into the 2018 budget are realised. While the process was deeply sensitive for staff and caused anxiety, it was in the best interests of UCT in the longer term.

The financial effect of the insourcing of over 1 000 contract staff was also felt fully in 2017. It was clear that insourcing was necessary from a social justice perspective, but it was also an opportunity to improve operational efficiencies in relation to staffing, which makes up 66% of total operating costs.

Despite the pressure we were under following protest action, we were still able to keep up the trend of collection of fees. Although we haven't seen a steep decline in deficits, we have been able to maintain a cash reserve equivalent to between 20 and 30 percent of our operational costs.

Student funding

The Fees Must Fall campaign, which erupted on campuses across the country in 2015, revived the debate over whether South Africa should offer fully funded tertiary education. The president's announcement in December 2017 regarding full funding for students at public universities with annual household incomes less than R350 000 will be good news for many, and the university will adapt to this change in funding. However, it is worth noting that UCT's financial aid offering is far above the government threshold, extending to households earning up to R600 000 per annum.

In 2017 UCT allocated over R1 billion to student financial aid for undergraduate and postgraduate students. Of this, R739 million was provided for undergraduate financial aid, with R349.5 million going to postgraduate students. These funds came from the National Student Financial Aid Scheme (NSFAS), the National Research Foundation (NRF), UCT's own funds, corporates, other government entities, academic department allocations, research-linked postgraduate bursaries and donated funds. UCT also allocated R20 million in 2017 to cover financially eligible students who were close to graduating, or could progress to the next

THE FINANCE NUMBERS

Revenue: R3 106 million

| | Rm | % |
|---------------|--------------|---------------|
| INCOME | 3 106 | 100.0% |
| State subsidy | 1 284 | 41.3% |
| Tuition Fees | 1 337 | 43.0% |
| Other Income | 486 | 15.7% |

Expenditure: R3 060 million

| | Rm | % |
|--|--------------|---------------|
| EXPENDITURE | 3 060 | 100.0% |
| Staff & related costs | 1 998 | 65.3% |
| Financial aid & scholarships | 165 | 5.4% |
| Administration and operating expenses | 356 | 11.6% |
| Jammie Shuttle | 18 | 0.6% |
| Library acquisitions, books and journals | 86 | 2.8% |
| Maintenance | 52 | 1.7% |
| Rates and utilities | 124 | 4.1% |
| Computers, furniture and equipment | 86 | 2.8% |
| University research and equipment committees | 58 | 1.9% |
| Other costs | 118 | 3.8% |

STUDENT FINANCIAL AID UCT ENROLMENT NUMBERS 2017

Undergraduate
17 218

Postgraduate
10 458

Occasional
973

TOTAL:
28 649



946 laptops were provided to financially eligible first-year students to assist with their studies, funded largely from the Vice-Chancellor's Strategic Fund.

academic year of study, but were prevented from doing so due to outstanding fee debt from prior years.

It must be emphasised that tuition fees and state funding alone do not cover the cost of educating our students, while research grants do not cover the full cost of the research enterprise. It is hard to overstate the importance of philanthropy to the university - UCT would be unable to fulfill all of its obligations to the community without the financial generosity of philanthropists. An increase in endowments in 2017 was very encouraging and a sign of confidence in the university that is enhanced by the way we run our finances.

The university again received an unqualified audit report in 2017, which enabled us to complete and submit the UCT Annual Report to the Department of Higher Education and Training on time, despite having a late start to the academic year.

“UCT’s financial aid offering is far above the government threshold, extending to households earning up to R600 000”



Key projects

UCT embarked on some exciting initiatives in 2017.

Following the insourcing of contracted staff, student protests and health and safety issues, the university proposed the creation of its own UCT Food Services company, with an initial investment of R52 million. This proposal received the support of both the University Finance Committee and Council in late 2017, with the result that UCT is to provide all food on campus in the longer term, and will be opening eight stores in 2018. These will be supplemented by food trucks (in the short term) and vendors, with a centralised kitchen and healthy, sustainable menus at its heart.

In March 2017 the university introduced a programme to provide laptops to all NSFAS-eligible first-time entering students. In this, the first year of the programme, laptops were provided to almost 1 000 students amounting to R6 million.

The university placed significant focus on Broad-Based Black Economic Empowerment (B-BBEE) over the past year. We conducted awareness sessions and developed a B-BBEE booklet, as well as a B-BBEE procurement dashboard. We also commissioned a triple B-BBEE best practice report. In terms of supplier and enterprise development expenditure, R4.9 million was moved to Inyosi Enterprise and Supplier Development Funds, which will ensure that UCT will be a level 7 B-BBEE contributor when measured again.

For 2018, we have a long-term capital expenditure plan to address maintenance backlogs as well as starting a process to review the property management of our buildings, inclusive of Student Housing.

With a focus on sustainability, UCT is well poised for the future and is committed to creating a working environment that promotes entrepreneurship, good governance and operational efficiency.

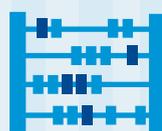
UNDERGRADUATE FUNDING

In 2017 a total of R739 million was committed to undergraduate financial aid and assisting with historical debt, with the biggest increases coming from UCT's own funds, funds raised from donors and corporate sponsorships.

UCT (general operating budget): R145.5 million
Corporates, sponsors, trusts and others: R269.3 million
National Student Financial Aid Scheme (NSFAS): R227.4 million
Endowments and other funds: R96.8 million

8 464 or 49% of UCT's undergraduate students received financial support.

Financial aid (NSFAS and UCT top-up funding): 3 407 students
GAP (UCT funded): 1 134 students
External bursaries (corporates, NGOs, foundations, philanthropy): 3 923 students.



90% of financial aid (NSFAS and UCT top-up funding) and GAP funding recipients were designated black students (African, coloured, Indian and Chinese).

POSTGRADUATE FUNDING

For postgraduate funding, a total of R349.5 million was distributed in 2017. This money came from many sources, including UCT's own funds, academic department allocations, the National Research Foundation (NRF), postgraduate bursaries linked to research programmes, and donated funds.

3 386 or 32% of postgraduates were financially supported.

3 038 postgraduates were awarded a total of R268.6 million:

| | | |
|---|--|------------------------------------|
| UCT (general operating budget): R26.3 million | Departmental: R108.9 million | Donations: R35.6 million |
| Investments: R11.3 million | NRF: R83.2 million | State: R3.3 million |

348 postdoctoral fellows were awarded a total of R80.9 million

UCT (general operating budget): R5 million
Departmental: R52 million
Donations: R3.2 million
NRF: R20.7 million

FEE DEBT APPEALS

In 2017 the undergraduate student fee debt appeals criteria were broadened. As a result, 1 398 students were allowed to continue their studies and 370 students with debt received assistance to graduate, thanks to almost R20 million from UCT and donors.

*These figures were unaudited at the time of going to print and may be subject to change.

An aerial photograph of a university campus, likely the University of Cape Town, showing a large mountain (Table Mountain) in the background, a dense forest, and various university buildings with red-tiled roofs. The sky is clear and blue.

The 2016-2020 Strategic Planning Framework

THE 2016-2020 STRATEGIC PLANNING FRAMEWORK has been developed against the backdrop of widespread social action on campuses throughout the country. The focus of the social action has been the inequalities, prejudices and structural disadvantages that continue to characterise South African society and our universities. The Strategic Planning Framework is organised around five broad goals and high-level

institution-wide objectives to effect improvements in the areas of research, teaching and learning, internationalisation and social responsiveness, while infusing all of these with the transformation agenda. Many of the objectives are drawn from Senate-approved teaching and learning and research strategies, and the policies on internationalisation and social responsiveness. The following is a brief overview of the five goals.



1 A new, inclusive identity for UCT

We want a student and staff body that is more representative of the country and the continent, and for students and staff to see themselves – their cultures, values, heritage and knowledge systems – reflected at the university.

2 Global partnerships with a distinctive African lens

We want to advance the status and distinctiveness of scholarship in Africa, and attract and connect people from all over the world, by promoting a vibrant and supportive intellectual environment at UCT.

3 A research-intensive university

We want UCT researchers to continue making a distinctive contribution to local and global knowledge and to produce new solutions to challenges facing the African continent and the world.

4 Innovation in teaching and learning

We want to improve students' success rates, broaden their academic perspectives, stimulate their social consciousness and cultivate more critical citizens by renewing our approach to teaching and learning, and pioneering new methods.

5 Social impact through engaged scholarship

We want to enhance UCT's engaged scholarship to address critical development and social justice issues, including the expansion of community and external partnerships.

STATEMENT OF VALUES

As a public university in Africa, we fully embrace our African identity. We are committed to utilising our resources to widen educational and social opportunities, enhancing the quality of life of individuals and communities, building an equitable social order based on respect for human rights, and advancing the public good through knowledge generation, teaching and active engagement with key challenges facing our society – South African, continental and global.



Supporting curriculum transformation

Gwenda Thomas, executive director of UCT Libraries, explains how redesigning the libraries' organisational structure, together with a new strategic plan, is helping them to better support world-class scholarship and curriculum transformation.

"UCT LIBRARIES is playing a purposeful and robust role in supporting the university community when it comes to the mission to educate and as a research-intensive institution," said Thomas.

The Libraries' team, made up of 120 people, is currently implementing a new organisational structure.

"We want to ensure that the right teams are in place in order to serve our very diverse library patrons ... to support both students and staff in their research and to assist lecturers in creating innovative teaching materials."

Strategic planning with the university executive during 2017 identified a list of priority projects.

"Firstly, the way we store and manage research data sets is evolving very rapidly. Secondly, we are committed to playing our part in addressing curriculum transformation at UCT.

"Beyond this we are working with faculties ... in supporting the academic community to manage research data, especially published data sets to support research output."

Reimagining the library

Evolving as a digital library includes continuing work on creating an eResearch platform, as well as other open-access publishing platforms.

"We are very proud of our specialised collections," said Thomas.

These cover a wide range of African scholarship in various formats, including manuscripts, photo and oral history.

"We are working hard to make these discoverable and accessible."

These collections not only enhance the student experience in exploring research but also provide educators with the materials to inform curriculum reform.

Said Thomas: "In the future I would like to look back and ... know that we played a part in helping to create reimagined services, facilities and collections that truly bring out the depth and breadth of African scholarship."

Collaborating for safety

Creating a safe campus environment is not just about new technology, officer training or access control, says Bernard Soules, special services and events manager for Campus Protection Services (CPS).

"COLLECTIVELY COMBATting CRIME by encouraging collaboration by all parties is still the most effective way to create a safe and caring community."

Don Smith, head of CPS, said, "The only truly satisfactory crime rate on campus is 0%, but we must also be realistic."

In 2017 CPS recorded an increase of 5% in crimes on campus compared to the year before, with a noticeable increase in thefts from and of motor vehicles. In order to address these issues, CPS is harnessing the potential of new camera technology, focusing on better access control and providing training and incentives for officers.

"We are trying to take a multifaceted approach to ensuring safety on campus," said Soules. "This includes everything from creating better lighting to ensuring that officers are as motivated as possible by providing additional on-the-job training and rewards."

As well as several arrests made in 2017, other positive news includes better continuous monitoring programmes and additional officer training with on-campus organisations like the Sexual Assault Response Team (SART).

"When it comes down to it, the best crime prevention relies on human relationships," said Soules.

Within this people-centred context, CPS works hard to nurture relationships both on and off campus, with the police, community policing forums and the Groote Schuur Community Improvement District (GSCID).

But, said Smith, CPS's most important partner is staff and students.

"Our officers can't be everywhere at once. So we take every opportunity to educate staff and especially students about how to keep safe and why they should always report anything suspicious they see. They may very well help in preventing a crime."

A survivor-centred approach

Professor Lillian Artz, chairperson of the Sexual Assault Response Team (SART), said that they will be working to ensure that UCT's response to sexual assault and harassment is cohesive, compassionate and survivor-centred.

"THIS INCLUDES THE REVIEW AND REVISION of policy, prevention and awareness campaigns, and the training of first responders," she said.

"SART takes a survivor-centred approach in the response to sexual offences," said Artz. "This means that the onus for the prevention and investigation of such offences is removed from the victims."

In 2017 SART interrogated its role at UCT, providing guidance for first responders and analysing UCT's current sexual offences policy.

"We consulted with a variety of university stakeholders to get a clearer idea of how SART will monitor and assist in cases of sexual assault, how binding SART's recommendations are as well as looking at questions about how to ensure SART's ethical independence."

Visible interventions

One of SART's most visible interventions in 2017 was the Silent Protest, held on Jameson plaza on 29 August. Co-hosted by SART, the AIDS Healthcare Foundation and the UCT Survivors group, the event honoured the victims of sexual violence and focused attention on gender-based violence.

"The Silent Protest was a very powerful way of making the issue of sexual violence more visible," said Artz.

A workshop held in November gave those responsible for investigating and managing sexual offences a chance to discuss their roles and the challenges they face.

"One of the main aims of the workshop was to discuss how we can avoid repetitive processes while still ensuring that 'justice is done'."

The workshop resulted in a number of recommendations, from the pragmatic (creating a flow chart for reported offences) to the policy-based (the need for specialised tribunals).

SART's aims for 2018 are likewise both pragmatic and policy-focused.

"We will be working hard to support a cohesive response to sexual assault cases and raise awareness through numerous on-campus campaigns and the sequel to last year's Silent Protest."

"The Silent Protest was a very powerful way of making the issue of sexual violence more visible."



PRIORITISING HOLISTIC WELLNESS

WITH NEW SYSTEMS, increased efficiency and drives to promote holistic health and wellness, Dr Memory Muturiki, the new director of the Student Wellness Service (SWS), has overhauled the centre.

When Muturiki took over directorship of the SWS in August 2017, she was faced with a waiting list of over 300 students seeking psychotherapy services.

"We could never match the number of clinical psychologists ... to the number of students that require the service," she said.

The team had to improve operations to widen access for students, and have them efficiently evaluated for risk. Their new assessment system, much like the triage employed in public healthcare, had the waiting list under control within three months. And this approach has been incorporated into their operations model.

Managing mental health

Moreover, the team plan to help students to manage their own mental health through various health promotion campaigns, such as the Wellness Drive planned for 2018. This drive seeks to promote health and well-being, mental health awareness, HIV counselling and testing, and to provide information on the SWS services offered.

In teaching students how to look after themselves holistically, Muturiki and her team hope to reduce the number of students requiring therapeutic services, and to encourage those who need support to seek help early - before they develop complex presentations of mental health illness.

"Talk to someone, and do it as quickly as possible, even if you don't think it is serious," she advises. "We have the UCT Student Careline available 24/7."

FACT A team of three part-time medical doctors, four full-time and five part-time clinical psychologists and a consultant psychiatrist provided psychotherapy to students. In October this team was augmented by two clinical psychologists, a clinical social worker and a psychiatric nurse, thanks to donor funding.

The DSA Crisis Intervention Service, popularly known as the 'night nurse' service, offers mental health help to residence students after hours.

SOCIAL RESPONSIVENESS

AT FIRST SIGHT it might be hard to imagine what creating more inclusive cities, providing opportunities for high school students in Khayelitsha to get into university, empowering young women to reduce HIV infection, and using drama to assist prisoners to reintegrate into society have in common. These activities are as diverse as they are distinctive.

The common thread is that they all form an integral part of UCT's social responsiveness programme.

The university is using engaged scholarship to make a meaningful difference in the world, with staff and students connecting with communities to tackle the critical development issues facing us as a country.

Social responsiveness at UCT has developed over the years from a "nice to have" to its present status where it is embedded in the very fabric of the university's vision and mission. And engaged scholarship has evolved from an ad hoc and isolated activity into a conceptual framework and philosophy that animates and informs teaching, learning and research at the university.

In UCT's Strategic Planning Framework 2016–2020, a clear goal is to enhance the university's engaged scholarship to address critical development and social justice issues, including expanding community and external partnerships. The overarching objective is to contribute towards combatting poverty and inequality, promote development, strengthen democracy and reverse the apartheid legacy of racial discrimination.

We hope that in the following pages you will see not only UCT's commitment to these goals, but the enormous strides that are being taken to realise them.

DR RUSSELL ALLY
EXECUTIVE DIRECTOR: ALUMNI
AND DEVELOPMENT



Tackling food insecurity

Medical students Nicole Bolton, Mhlali Vezi, Aphiwe Meyiwa, Lwazi Mpuku and Luvo Mbobo conducted a research study on the nature and burden of food insecurity.

CARRIED OUT AS PART OF THEIR PUBLIC HEALTH COMPONENT in fourth year, their research focused on the Vanguard Community Health Centre, which serves Bonteheuwel and Langa.

"The study was conducted to find out the proportion of people ... who are experiencing food insecurity. It also aimed to identify the social and demographic factors associated with this," said Bolton.

Of the 121 attendees surveyed, 81.82% were found to be food insecure to some extent, and 53.71% were found to be severely food insecure. This meant that they regularly went a full 24 hours without food due to a lack of resources.

"This is particularly concerning considering the close relationship between food insecurity and health. Poor nutrition has long been linked to a variety of health conditions," said Bolton.

A number of initiatives already exist in Bonteheuwel and Langa, but these unfortunately do not meet the full needs of the community.

Learning from one another

"We each come from unique and different circumstances and were able to use this to consider different cultural and psychosocial aspects of this project," said Bolton.

Working together, the group soon realised how quickly their research became less of a project and more of a real problem that they wanted to address.

"We heard the stories and challenges of many desperate people struggling to feed their families. This was a hard lesson to learn as we tried to find the balance between clinical data and the emotional truths," said Bolton.

"I love that UCT continues to serve the communities around us. We are given opportunities, through SHAWCO and research projects like ours, to try and make a tangible difference."

The group hopes that the findings of their study will provide justification for resource allocation from corporates or other organisations to assist with long-term solutions in these communities.



The SurgSoc climbers: Caleb Langton, Emma Alfeld, Amy Patterson, Liam Devenish, Shandri Erasmus, Jared Tumiel, Jeremy Li Wan Po, Sasha Tinelli, Louisa Taylor, Constance Bam and Nick Loxton.

Climbing Kili for dialysis

As part of their Kilimanjaro Kidney Climb, 11 members of UCT’s Surgical Society successfully summited Africa’s tallest peak to raise funds to buy a life-saving kidney dialysis machine for Groote Schuur Hospital.

“BECAUSE OF THE LIMITED NUMBER of renal dialysis machines at Groote Schuur, more than 50% of patients requiring treatment have to be turned away,” said Nicholas Loxton, the organiser of the climb. “It’s really heartbreaking.”

The Surgical Society (SurgSoc) initiative had two goals: raising awareness about the shortage of kidneys being donated for transplant; and drawing attention to the shortage of available dialysis machines.

The only concrete change that the students could bring about to address these issues was to raise money for a new haemodialysis machine for the hospital, said Loxton.

A machine that costs about R180 000.

Exceeding their goals

The Kidney Climb took place from 17 to 22 December and the SurgSoc students reached the summit on 21 December. But more

than this, they also reached and surpassed their fundraising target, substantially.

The society managed to raise a total of R510 000, and counting, which has enabled them to purchase not one but two haemodialysis machines for Groote Schuur’s renal unit. In addition to this they are coordinating the purchase of two further machines – a specialised haemodialysis machine for unstable patients and a reverse osmosis machine to improve the safety of water used to dialyse patients.

Motivating our learners

PROFESSOR COLLET DANDARA AND SOME OF HIS COLLEAGUES from the Faculty of Health Sciences were concerned by how few black African students were in their classes.

Instead of waiting for things to improve, they decided to find a way to actively help learners into tertiary institutions.

Together with student organisation Dikakapa-Everyday Heroes, they partnered with Fezeka Secondary School in Gugulethu.

“Our country is in need of an overhaul. Our communities are in crisis. If we are to truly see a change in black communities, we have to be willing to be part of the solution,” said Kamogelo Lebeko, chairperson of Dikakapa-Everyday Heroes.

The partnership, which has progressed over the past three years, began through motivational workshops. Identifying with the challenges faced by the scholars, the group shared how they had come to be at UCT.

The hope was that the learners would be able to imagine themselves at tertiary institutions, as both students and staff.

Transforming mindsets

Dandara said, “I come from humble beginnings. I used to walk to school, read using sunlight only because of lack of electricity, and yet I overcame all this to now be full professor at UCT.

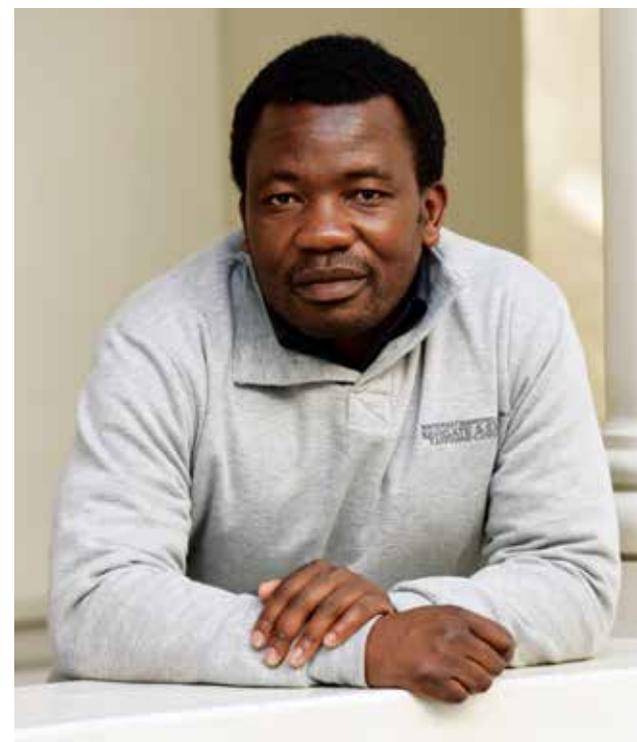
“They too, given the right motivation, can see that it is possible to change their circumstances through education.”

When it became apparent that the school lacked academic support for its grade 11 learners, Dikakapa-Everyday Heroes stepped in.

“The idea is ... to transform the mindset of the learners by showing them that just by showing up, they are already at a greater advantage,” Lebeko said.

It is essential that learners have mentors and role models. They face “a very different reality to their counterparts who have support and encouragement from a very young age”, said Lebeko.

The project has already had promising outcomes, with some participants preparing to enter university.





Rehearsing rehabilitation

Wearing his life on his arms, an inmate contemplates his future.

UCT postgraduates are working with the Help! I am Free drama programme, which supports prisoners through the crucial stages of their reintegration into society.

UCT GRADUATES HAVE BEEN AN INTEGRAL PART of an innovative and creative method of rehabilitating prisoners and creating a support mechanism for parolees. Their efforts culminated in *The Making of a Criminal: Part 2*, which was staged at Artscape Theatre in September by inmates from Pollsmoor Correctional Centre.

Chiminae Ball, a master's student at UCT specialising in dramaturgy, directed the second performance in the programme, *The Long Walk*, which showcased the talent of parolees.

"Although the programme is artistically orientated towards the production of a play and live performances at Artscape, it supports the reintegration of offenders through the building of skills, confidence and social work," said Betzi Pierce from the South African National Institute for Crime Prevention and Reintegration of Offenders (NICRO).

"The aim is to support inmates throughout the crucial stages of their reintegration, which is the last year of imprisonment and first year of freedom."

Citizens with convictions

Chiedza Chinhanu presented a paper titled "Citizens with Convictions: Prisoners, prison theatre and civic engagement" at the Prison Theatre Symposium that preceded the performances.

An applied prison theatre practitioner with a master's in applied drama and theatre studies from UCT, Chinhanu first became interested in drama therapy in prisons after a friend was imprisoned in Zimbabwe.

She contacted Dr Veronica Baxter, associate professor in the Drama Department at UCT, who supervises a prison theatre project, and began her master's journey. While working with inmates at Goodwood prison, she recognised the profound impact that the programme had on the participants.

"[Theatre in prisons] facilitates a multitude of affects and effects that I have witnessed: improved self-esteem, better verbal and non-verbal communication skills, ability to reflect on emotions ... a stress relief and release, and learning to work as a group."

Unpacking the spatial paradox

Is a truly integrated and spatially just Cape Town possible?

PROFESSOR EDGAR PIETERSE, HEAD OF UCT'S AFRICAN CENTRE FOR CITIES, together with Professor Premesh Lalu (University of the Western Cape) and Dr Adi Kumar (Development Action Group) addressed this question at a panel discussion entitled "Integration Complexities" at Cape Town's Open Book Festival.

They outlined problems with the popular narrative surrounding spatial exclusion in Cape Town, as well as steps that citizens, government, academia and civil society might take to realise spatial justice.

Discussion around the Tafelberg site and gentrification in Woodstock and Salt River are good examples of issues that reach the public

domain, said Pieterse. They demonstrate polarised views portrayed in the media, without any sense of what to do about it.

In recent years, there's been a real shift in coming to terms with the underlying drivers of spatial inequality and exclusion, he said.

South Africa has a redistributive investment approach, he explained, through free housing and transport subsidies.

"So, what we have seen since '94 is a massive redistributive investment to alleviate poverty through these various subsidies. But effectively it has worsened the spatial form of the settlements in South Africa."

The private sector tends to invest in areas as far from the poor and as close to

economic centres as possible.

"This is a spatial paradox: the more we redistribute, the greater spatial injustice becomes."

Imagine if we placed a moratorium on sprawl for the next decade, Pieterse said. This would mean no more public housing built on the city's outskirts. Instead, we'd look to underutilised and neglected spaces in the city.

"Let's be clear that change comes about through specific sites, through specific people, but we have to be able to think that in relation to the city as a whole. And that is what I think has been missing from our discourse."

A gateway for promising Khayelitsha matriculants

UCT'S SCHOOLS IMPROVEMENT INITIATIVE (SII) celebrated the fifth year of its partnership with Khayelitsha schools and the Western Cape Education Department. The community-based project is a gateway into university for promising Khayelitsha matriculants, and the project has yielded dividends: the township's first cohort of graduates from UCT.

The SII was launched by Vice-Chancellor Dr Max Price in 2012 as a multi-stakeholder approach to dealing with the challenge of poor performance by learners from township and rural schools.

Formed to harness the university's broader resources and create meaningful partnerships with education-related groupings, inside and outside of UCT, the SII is aligned with UCT's strategic goal: to forge a new, inclusive identity.

Through the SII programmes, UCT mobilises university-level resources to improve the quality of teaching and management in three primary and two secondary schools in Khayelitsha.

Among the SII's standout successes is its flagship 100UP programme. Working with learners in grades 10 to matric in all 20 Khayelitsha secondary schools, 100UP helps to prepare learners for university

entrance. The results have been startling.

Of the four matric groups exiting the programme thus far, there have been 778 matriculants, including those learners recruited into their additional support programme, the Gill Net, in Khayelitsha and Mitchells Plain. All but one passed and of the 709 who obtained bachelor degree passes (96%), 643 (90%) enrolled for tertiary studies. Almost half were admitted to UCT.

Approximately 83% of the matriculants on the programme have gone on to university, and the programme has more than doubled these enrolments at UCT each year.



Empowering women to reduce HIV infection

They're young and female, the South Africans most at risk of getting HIV. But the Women of Worth empowerment project aims to change that.

IMPLEMENTED BY THE DESMOND TUTU FOUNDATION, the Women of Worth project is a social and healthcare programme that targets women between the ages of 19 and 24 in the Mitchells Plain and Klipfontein districts. In South Africa, women in this demographic group have the highest risk of getting HIV (and are six times more likely to contract HIV than their male counterparts).

"These young women are an ideal target for a preventive intervention," said Carey Pike of the Desmond Tutu Foundation. "If we can empower these women financially, mentally and sexually then they will be less susceptible to becoming infected."

Breaking the cycle

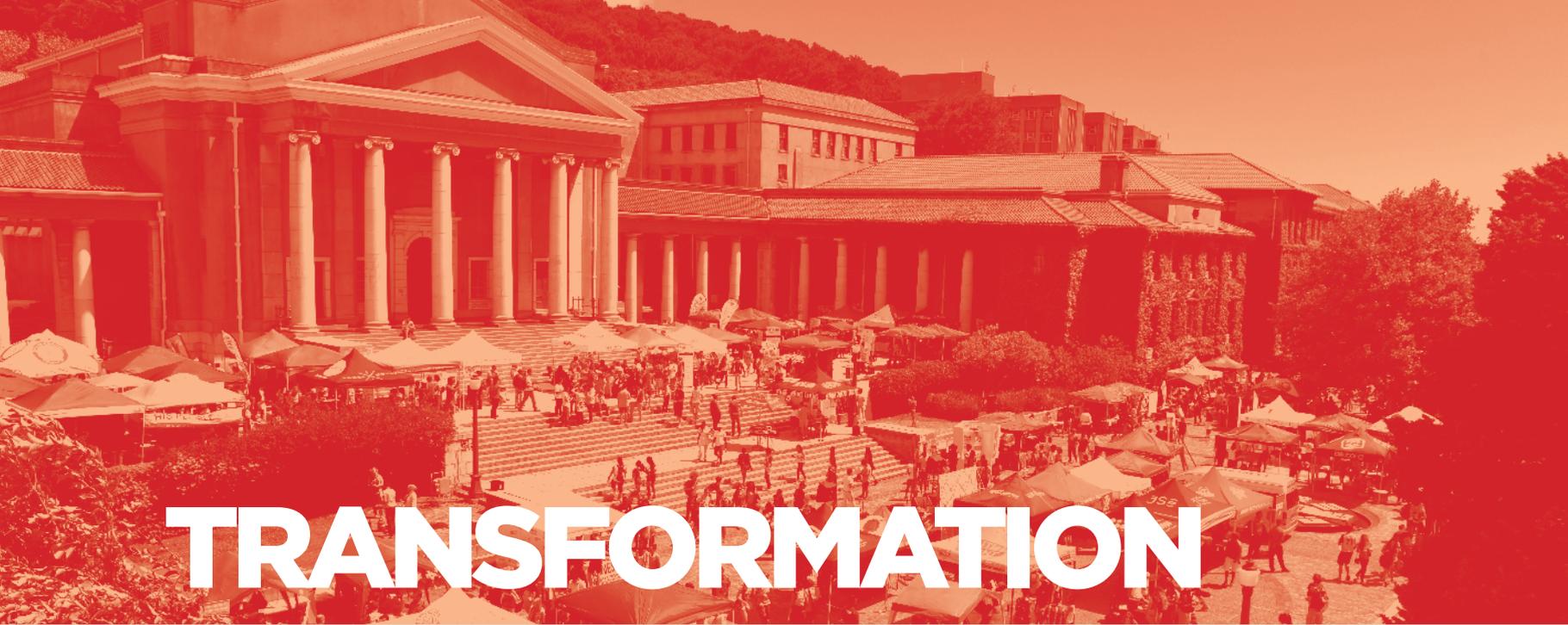
The project sees empowerment and care as key to breaking this cycle, which is perpetuated by high unemployment, high school dropouts, and low levels of tertiary education. It's part of Zimele, a three-pronged national programme that is targeting 22 000 women and girls to reduce new HIV infections, keep girls in school until graduation, and decrease unintended teenage pregnancy.

Women of Worth offers a series of 12 free, once-monthly workshops run by trained facilitators. The aim of the workshops is to decrease HIV incidence and unintended pregnancy by enhancing their economic ability, opportunities and

job-seeking skills by linking them to proper training facilities.

The challenge, said Pike, will be to evaluate the project's long-term impact, which will affect the broader community. Launched on 3 May 2017, the aim of the programme is to enrol 10 000 women by the end of 2018.

"By impacting on 10 000 women we hope there will be spill-over in two ways: to help other young women in the community; and as they are the mothers of the next generation (some are already mothers), we hope they will pass on their skills to their children to break the cycle of misinformation and low economic opportunities."



TRANSFORMATION

CONTINUING WITH AN EMPHASIS ON ACTIONABLE CHANGE, the transformation work of UCT holds at its core the five goals of the UCT Strategic Planning Framework 2016–2020, which addresses transformation in a number of ways: through forging a new inclusive identity; interrogating existing curricula; improving student performance; pursuing employment equity targets; and affirming the dignity, contributions and experiences of all people in the UCT community.

These goals are reframing the way we think about the challenges and experiences that students bring with them by focusing on the academic, administrative and social barriers that hinder their success at the institution. Our strategic, yet critical, focus on transformation continually builds on how we teach, learn, research and co-exist at this university.

PROFESSOR LORETTA FERIS
DEPUTY VICE-CHANCELLOR FOR
TRANSFORMATION AND STUDENT
AFFAIRS



Supporting transformation

KEY OPERATIONAL CHANGES took place during 2017 to further support the university’s transformation agenda.

One of these was the restructure of the Transformation Services Office, which resulted in the newly formed Office for Inclusivity & Change. The OIC oversees the three service areas of disability; discrimination and sexual assault case management; and cultural change, student capacity building and education. This office will enhance the efforts of the university stakeholders in achieving their transformation goals.

Another key area of change in 2017 was the setting up of a Transformation Forum under the Institutional Forum. The impetus for this was a recognition that while transformation committees are operational within every department, these committees do not necessarily have a shared vision and therefore a shared understanding of their role in driving transformation.

Furthermore, with the restructuring of the University Transformation Advisory Committee into a more focused employment equity forum, there was a need for a platform to address the broader transformation agenda.

Employment Equity (EE) remains a key concern for the university. The staff demographic profile, with respect to race and disability in particular, is yet to reflect the demographics of the province and the country. We are therefore strengthening EE interventions and are working towards a comprehensive EE strategy that addresses recruitment, staff development and retention, and calls for human resource policies to be reviewed to align with such a strategy.

We have started to ensure that EE representatives are better capacitated to fulfil their functions and have conducted intensive training with them. We have organised information sessions with trained EE representatives to better understand the challenges they encounter and to brainstorm ways to address these.

The Employment Equity Fund, funded through the VC’s Strategic Fund, has been strengthened through the creation of more robust processes that will enable the fund to play a deeper role in EE. A committee has been set up to review all applications to ensure that they comply with the criteria of the fund as well as HR processes.

Increased levels of sexual violence are of key concern to the institution. With the restructuring of the Transformation Services Office, a focused response to sexual violence is now possible. 2017 saw closer collaboration with the Sexual Assault Response Team (SART) in order to begin to articulate this response.

A two-day workshop led to a set of recommendations that, when fully implemented, will ensure that the university can provide compelling advocacy and awareness to prevent sexual assault. This will be paired with a stronger, survivor-centred support service and a disciplinary process that includes a specialised tribunal for sexual assault cases.

In recognition of the need to have robust conversations on institutional culture and decolonisation, we have organised a number of events. We collaborated with the Curriculum Change Working Group to host a talk on the decolonisation of science and mathematics, while at faculty level we organised seminars and café style conversations to enable constructive engagement.

Faculties and departments also expressed further commitments to transformation – through realigning their work, processes and activities to respond directly to UCT’s transformation goals.

Our goals are ambitious, and achieving them requires greater cross-collaboration between faculties and departments. This sharing will allow different groups of staff and students to engage with and learn from one another.

“Our goals are ambitious, and achieving them requires greater cross-collaboration between faculties and departments.”

Decolonising the curriculum: it's in the detail

A decolonised curriculum has been at the heart of student protests over the past three years. But defining 'decolonised' is not that simple, write a group of academics that includes Dr Kasturi Behari-Leak from UCT's Centre for Innovation in Learning and Teaching.

DECOLONISATION IS A NUANCED CONCEPT. Its meaning cannot be unlocked using a scientific formula, recipes or definitions. An understanding of the process of decolonisation lies more in its detail than its definition.

For instance, little attention has been paid to how universities still reproduce colonial methodologies and practices that may not be relevant in South African universities today.

These colonially inherited practices include committee meetings. Most groups use some form of western parliamentary procedure – a set of rules for meetings which ensure that the traditional principles of equality, harmony and efficiency are kept.

The thought of a two-hour committee meeting – a staple of university life – fills many academics with dread: passive listening and domination of the space by those with power or agendas. There are many similarities between this and how students experience colonial classroom practices.

In both scenarios, those who can speak are those who already have the currency to do so. Others, concerned about how their accents, use of language and lived experiences will be judged, remain silent.

There are other ways to conduct meetings and present lectures; many are already part of South Africa's cultural heritage. Could adopting, adapting or even just understanding more about these help universities to release colonialism's grip on their practices?

Rethinking traditional practices

In African settings, different "meeting" practices are followed.

The traditional lekgotla has been used for centuries for village assemblies and village leaders' meetings. There's also the indaba, historically an important conference held by the principal men of a particular community or with representatives of other communities; and the imbizo, a forum for policy discussion.

The lekgotla, indaba and imbizo have featured in meetings and conferences for some years. But do people really engage with what it means to be part of such a gathering? Ideally, by bringing individuals into a collective space, organisers should be inviting different knowledge and thought perspectives.

During a recent executive meeting of the Higher Education Learning and Teaching

Association of Southern Africa (HELTASA), we decided to do things differently. And the ways of interacting that emerged drew on members' backgrounds, contexts, dispositions and theories of change in meaningful ways.

A different approach

The [meeting] agenda included time for members to speak for themselves and to bring their authentic selves, contexts and backgrounds into the room. By bringing people into the space on more equal terms, we started to "populate" the room in a way that validated and acknowledged the team's varied expertise and energies. By empowering people in meeting spaces you enable them to exercise their agency to ask more questions, offer more suggestions and contribute more meaningfully to decisions.

Those who oppose decolonisation might argue that you cannot just throw out all the current ways of being and behaving; that not all structures or practices are harmful. But by exercising agency in this collaborative and responsive way, meetings can be seen as a spiral, not a linear process.

People in academia should constantly move backwards and forward in their quest to find a solution. While striving for better ways to understand South African higher education today, those in the sector should look back and assess which ideas are still relevant and which should be done away with.

“By empowering people in meeting spaces you enable them to exercise their agency.”



A catalyst for transformation in higher education

AS ONE OF THE FIRST CENTRES OF EXCELLENCE established by the Department of Science and Technology (DST) in the country, c*change is providing a blueprint for transformation at a tertiary level.

Hosted by the Catalysis Institute in UCT's Department of Chemical Engineering, c*change is a virtual centre funded by the DST through the National Research Foundation (NRF).

Professor Michael Claeys, the director of c*change, is leading the nationwide collaboration of 14 research groups at 10 universities. In 2017 there were 55–60 postgraduate students within the centre. In addition, 15 postdoctoral research fellows received support.

The c*change funding covers the students' bursaries as well as the running costs of the respective scientific projects for the duration of their study. This NRF funding is made available to c*change because of their adherence to a strategic commitment to transform the unit.

Claeys emphasises that they have consistently managed to meet the targets and nurture a group of students that is "pretty much representative of the country", with half of the participants identifying as women and two-thirds as black.

Reaping the benefits

The best testament to the successes of transformation are those who have come up through the ranks. Having already completed her studies within c*change, Banothile Makhubela is now leading a research group at the University of Johannesburg (UJ) affiliated to the unit.

"My entire postgraduate studies at c*change in the chemistry department of UCT have shaped my scientific thinking," said Makhubela. "I have been equipped with the necessary skills and am currently supported by c*change in the research programme I'm running.

"Centres of excellence, such as c*change, are an example of what sustained support and a collective effort from dedicated academic researchers can achieve: producing master's and doctoral graduates and, in doing so, driving the transformation agenda."



Past imperfect

Justice, commemoration and memorialisation are powerful issues in post-conflict societies. Can South Africa learn from post-World War II Germany and Poland? Associate Professor Adam Mendelsohn took 20 UCT student leaders to the continent to find out.

MENDELSOHN, DIRECTOR OF THE KAPLAN CENTRE FOR JEWISH STUDIES AND RESEARCH, said he was struck by these young leaders: "thoughtful, sensitive, humanists".

The visit wasn't only about the Holocaust, however. It was also an opportunity for these student leaders to think comparatively about memory.

"Having been in the UCT student leadership and activist space over the last few years, [I see that] issues of memorialisation and history – particularly the collective trauma aspect – are huge challenges for the institution and the country," said Rorisang Moseli, a final-year student in politics, philosophy and economics.

"How we deal with colonial and apartheid memory at UCT will certainly have an impact on how the country begins to unravel some of the things the transition negotiations held onto.

"That is the role of the university and it's great to be part of that process."

Healing takes time

Fifth-year MBChB student Amy Booth was curious to see how Europe's lessons could be applied to correct apartheid injustices. Poverty and inequality, particularly, impact on health services. But she was also struck by how long the process of rebuilding took Germany and Poland.

"The role of the medical profession in the Holocaust was quite shocking; when we enter medicine, we take an oath to do no harm, quite the contrary to what was done in Germany. This also draws attention to medical ethics issues that took place in South Africa, Steve Biko being one example and Wouter Basson another."

Ongoing conversation is essential to reconciliation, she said.

"Overall, healing takes time, but it needs to be an active process between all members of society."

"It needs to be an active process between all members of society."



Bonolo Ntlatleng outside Museum Otto Weidt's Workshop for the Blind in Berlin.



The Next Generation Professoriate (NGP) programme, led by director Dr Robert Morrell in the Office of the Vice-Chancellor, was launched in 2015 to expand and accelerate the transformation of the professoriate.

THE ISSUE OF A DEMOGRAPHICALLY TRANSFORMED ACADEMIC STAFF COMPLEMENT has been at the centre of transformation and decolonisation debates at the university for some years, and particularly during the past three years of student-driven protest.

As such, the NGP is a welcome initiative that advances the development of mid-career academics, particularly black and female staff, through a range of support, developmental and networking initiatives.

Funded by the Vice-Chancellor's Strategic Fund, the NGP is a pilot project within the Recruitment, Development and Retention Programme, which provides targeted support to candidates, who are drawn from the six academic faculties as well as the Centre for Higher Education Development (CHED).

A group of exceptional individuals
Four candidates from the NGP were promoted in 2017's round of ad hominem promotions.

Professor Virna Leaner is a biomedical researcher in the Division of Medical Biochemistry and Structural Biology in the Department of Integrative Biomedical Sciences. She leads an active research group that is focused on the characterisation of genes associated with cancer development as potential biomarkers and therapeutic targets.

Professor Jennifer Moodley is the director of cancer research in the Faculty of Health Sciences. Cervical cancer is a leading cause of cancer deaths among women in sub-Saharan Africa and her research has targeted the prevention and control of the disease.

Associate Professor Manya Mooya's expertise is in property studies. His research work focuses on how value is created in real estate markets and on the links between these markets and capital accumulation, especially for the urban poor.

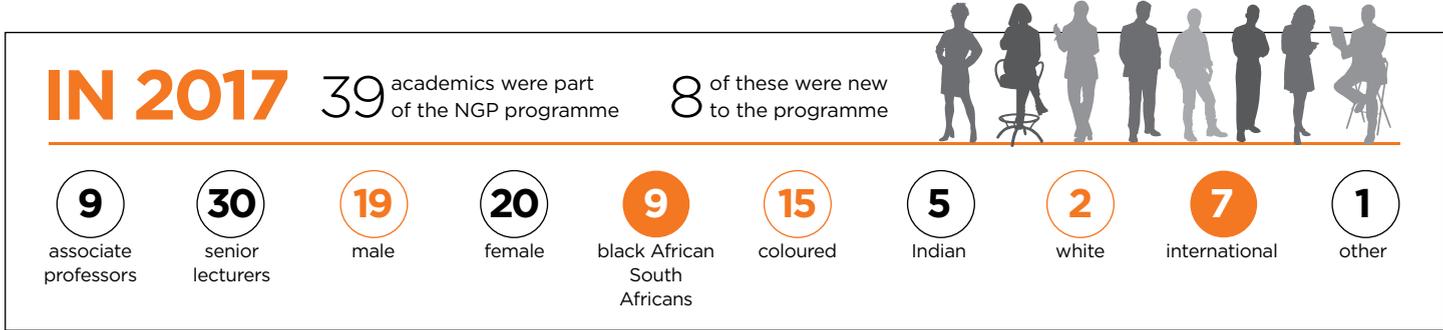
Mooya said, "I feel privileged to be part of this group of exceptional individuals, and to make my contribution, however modest, to the transformation agenda of the university."

Associate Professor Tolu Oni is a public health physician specialist and

epidemiologist. Her research area focuses on the urbanisation and changing patterns of disease, and the overlap between infectious and non-communicable diseases.

"The writing retreats that I've had access to through the [NGP] programme have provided the dedicated writing time required to achieve academic goals, allowing me time to complete and submit academic papers. In addition, the support and guidance received from the programme director has been a great help, particularly during the National Research Foundation rating and ad hominem application processes."

TOLU ONI
DID YOU KNOW?
In 2017 she was elected to jointly lead the Global Young Academy as co-chair for 2017/18. The academy comprises 200 early career researchers from 60 countries who are passionate about the role of science in creating a better world.



UCT'S STUDENTS

STUDENTS

28 649

students (including 973 occasional students) were enrolled to study in 2017



5 919
first-year students

111 countries represented on campus

6 702

students lived in UCT's 32 catered or self-catering student residences.

21 947

students lived off campus

Where do our students come from?

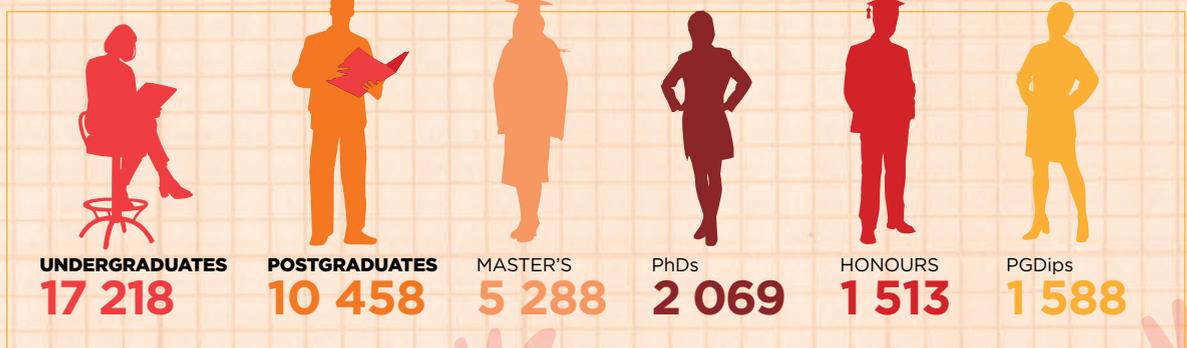
23 663
South Africa

2 515
Southern African Development Community

798
Elsewhere in Africa

1 595
Elsewhere in the world

78
Undeclared



How many students per faculty?



7 920
Commerce



4 862
Engineering & the Built Environment



4 802
Health Sciences



6 821
Humanities



1 397
Law



2 847
Science

14 933 female students

13 707 male students

9 unspecified



CLASS OF 2017 EXIT SURVEY RESULTS

43% employed working in 38 countries globally

37% studying further

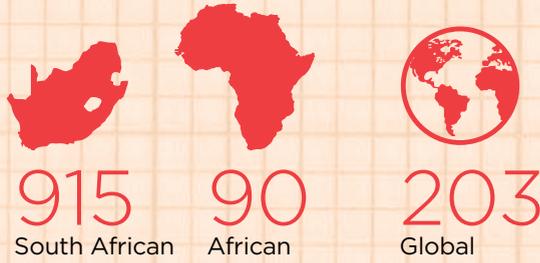
95% felt prepared for employment

*These figures were unaudited at the time of going to print and may be subject to change.

AND STAFF

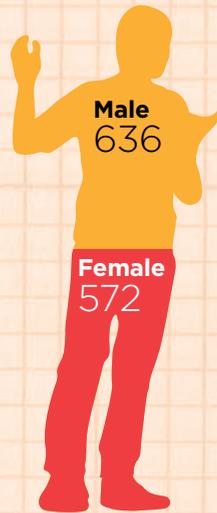
STAFF

1 208 permanent academic staff members called UCT home in 2017.



Black **183 (103)***
 White **738 (566)***
 Coloured **148 (145)***
 Indian **101 (83)***
 Other **38 (18)***

*South African



5 Junior lecturers

321 Lecturers

385 Senior lecturers

249 Associate professors

248 Professors



PhDs **777**



Master's **334**



Below master's **97**

Female professors

| | | | | | | | |
|------|------|------|------|------|------|------|------|
| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| 33 | 37 | 44 | 47 | 52 | 56 | 56 | 76 |

Black professors

| | | | | | | | |
|--------|--------|---------|---------|---------|---------|----------|----------|
| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| 8 (4)* | 9 (6)* | 10 (6)* | 10 (5)* | 13 (8)* | 12 (7)* | 17 (10)* | 24 (13)* |

*South African

542 NRF ratings

| | | | | |
|---------|---------|---------|---------|---------|
| A rated | B rated | C rated | P rated | Y rated |
| 41 | 168 | 240 | 8 | 85 |

A rated - leading international researchers
B rated - internationally acclaimed researchers
C rated - established researchers
P rated - prestigious awards
Y rated - promising young researchers

3 700

professional, administrative support and service (PASS) staff worked at UCT in 2017

Faculty based **1 215**

Other **2 485**



JOURNEYS

The university is more than books and buildings. It is a collective of people who teach, learn and discover in this space. In these pages, we tell the stories of the people behind the breakthroughs in research, the innovations in teaching and the lived experience of studying at UCT.

Where passion and compassion meet

As the oldest of seven children, the pressure was on for Malilimalo Phaswana when he decided to pursue a degree in actuarial science at UCT.

UPON HIS ARRIVAL, he heard about a programme that provided extra training and support. Given the difficulty of his chosen course, the decision to enter the Education Development Unit (EDU) was a no-brainer.

Now, in the first year of his academic articles in the College of Accounting, Phaswana is full of compliments for the EDU programme and its dedicated staff.

"It's one thing to be an educator or a teacher, but to take the extra step, where you are taking on additional support roles, it just shows that you must really be passionate about what you are doing."

This passion and compassion really shines through.

Phaswana finds joy in mentoring younger students. As a student in the EDU he benefitted from this sort of guidance, having been assigned a student mentor in his first year.

"Once you have experienced how much it has helped you, you really want to pass that on to someone else."

EDU functions alongside the so-called 'mainstream'. Students write the same tests and exams, but a number of classes are held separately.

"Everything we do is pretty much at the same level; it's just a way of delivering the lectures and the tutorials and giving us extra material in order for us to do the best we can," Phaswana explained.

Academic progress is monitored and students have regular contact with an academic development (AD) officer.

"They kind of just assess you and try to understand who you are and what your potential is, which I find very special."



State support for survivors of sexual violence

RUTH NEKURA ALWAYS IMAGINED that she would become a corporate lawyer, but having recently obtained her PhD she has settled somewhere between lawyer, activist and social scientist.

Nekura's PhD analyses integration as a means of fulfilling state obligations towards survivors of sexual violence.

Earlier in her career, her job at the Coalition On Violence Against Women (COVAW), a women's rights NGO in Kenya, included the support of cases through court.

"I saw the challenges in the criminal justice system ... as well as the disconnect between the sectors."

At that time, COVAW was implementing a programme for integrating health, legal and psychosocial support for survivors of sexual violence to enhance their access to justice. It was this that prompted Nekura to return to her studies.

"There was a general capacity gap, I found. ... I wanted to understand more about the frameworks we were using."

Her master's research in the UCT Faculty of Law probed the challenges of the criminal justice system for survivors of sexual violence. Her supervisor, Professor Dee Smythe, encouraged her to build on this and pursue a PhD.

"[Integration] really is just the idea that different sectors will or should work together to support survivors of sexual violence as they seek recourse through the criminal justice system."

Integration has been explored in various forms across the globe, but Nekura hoped to establish which models would be most effective on our continent.

Her research focuses on four centres in South Africa and four in Kenya, investigating models from a one-stop centre providing health, legal and psychosocial support to what is essentially a system of referral networks.

"If I could do nothing else but show how these models work to effectively fulfil state obligations ... I will be glad. If it can work, then the state can invest in it and take the initiative in leading it."

Medicine and science in harmony

Growing up in a missionary family where he was exposed to the sick and vulnerable in rural communities, Matthew Amoni always wanted to be a doctor. But he also loved the thrill of inventing things. The Pretoria Boys High pupil was torn.



IT TOOK A CANNY BIOLOGY TEACHER to persuade the teen that there was place for both in his life. Back then, Amoni never imagined he'd be able to combine his twin interests in an interwoven degree programme that yielded a BSc(Med) (Hons), a master's degree in cardiac physiology, and an MBChB, all by the age of 25.

He is now in Belgium doing a PhD in the laboratory of renowned cardiologist Professor Karin Sipido.

It's been a wild ride. UCT's Faculty of Health Sciences calls it the Clinical Scholars Programme, a programme to address the country's critical shortage of academic clinicians and revitalise clinical research.

The programme fast tracks MBChB students into clinical research – they squeeze in an honours degree during their medical studies and then start PhD research degrees.

With the Clinical Scholars Programme, Amoni began to see the possibility of weaving science into his medical studies in the honours year, sandwiched between the third and fourth years of the MBChB programme.

Amoni did things a little differently. He did a master's degree in cardiac physiology, in tandem with the last two years of MBChB, so that he could step straight into PhD studies in the field.

Some of the faculty said it was impossible, but the door opened.

The heart of matters

"I was so excited that week I went straight to the lab to start working."

That was in August 2014.

"I spent a lot of my December vacation in the lab; at that time, it was quite small and I designed and built some of the equipment and experiments."

Friends became his mentors and supporters. "When I was working late in the lab, friends would bring supper across from my residence. And when I was trying to figure things out and getting discouraged, they'd listen and say, 'Okay, this is how we're going to do it.' Without them I couldn't have done even half of what I did, and without God I couldn't have done any of it."

As he progressed, he found it easier to engage with the medical aspects of his work. His marks got better and he passed his MBChB finals as well as his master's with distinction, graduating in December 2017.

His PhD focuses on understanding the microscopic electrical circuitry of the heart, hoping to improve understanding of conditions such as arrhythmias, which account for almost half of all heart-failure deaths. The technology to study cardiac cellular electrophysiology doesn't exist in South Africa.

"Understanding these problems from the bedside and developing treatments for them on the lab bench is crucial".

The past seven years weren't all work and no play; Amoni enjoyed a rich student experience. He hung with friends, and participated in the Students Health and Welfare Centres Organisation (SHAWCO), heading up the research portfolio and Bellville clinic in his final year, and conducting research on how medical students benefit from a stint with the student-run outreach programme.

A doyenne of customary law

AFTER 24 YEARS OF SERVICE AT UCT AND NEARLY 40 YEARS IN CUSTOMARY LAW, Professor Chuma Himonga is the latest recipient of the Alan Pifer Research Award for Socially Responsive Research.

"I am a rural girl," said Himonga, who grew up on a farm in Monze, Zambia.

She credits her father for the discipline she applies in many areas of her life today.

"He would say to us, 'If the sun finds you in bed when it rises, you will be poor.'"

Her father's words were her guiding light from the farm to boarding school, to the universities of Zambia, London, Bayreuth in Germany and UCT where Himonga retired at the end of 2017.

It was this work ethic – along with her

love for the system that regulated her life as well as those of her friends and family – that led her to carve out a celebrated academic career in customary law.

Her work has greatly contributed to advancing the rights of women, children and indigenous communities.

Professor Penelope Andrews, dean of Law, and Professor Dee Smythe, director of research in the Faculty of Law, refer to her work as "a remarkable record of engagement with vernacular justice in practice".

In their nomination submission for the award, they lauded Himonga and her research; her collaborative efforts; the strides made under her leadership as holder

of the SARChI Chair in Customary Law, Indigenous Values and Human Rights; her nurturing of the continent's leaders; her transformative role within the Faculty of Law; and her teaching.

Her research centred on the law of persons and marriage, African customary law, legal pluralism, and women and children's rights under customary law in Southern Africa.

As retirement has arrived, Himonga is looking forward to spending more time with her children and grandchildren. She also plans to undertake faith-based community outreach, helping community members living in poverty lead healthier lifestyles, and keep one foot in academia.



Intervening in abusive relationships

Assoc Prof Floretta Boonzaier is exploring how context and identity come into play during intervention programmes with men who have been violent towards their partners.

When we ask why women stay in abusive relationships, we transfer blame away from the perpetrators of violence.

THIS WAS THE PREMISE OF ASSOCIATE PROFESSOR FLORETTA BOONZAIER'S

thesis back when she was a master's student in the Department of Psychology. Now, 16 years later, she continues to shift the discourse away from victim-blaming, and instead emphasises the need to work with both men and women to address intimate partner violence.

Boonzaier's body of psychology research interrogates the ways in which gender, race and identity are implicated in such instances of violence. She is currently engaging with the contexts and experiences of men who are violent toward their partners, as an essential step in designing interventions to change their behaviour.

But she hadn't always planned on pursuing a career in feminist research psychology. She very nearly ended up in internal auditing. The first of her family to graduate from high school, she "fell into" studying accounting at university.

Unable to find an in-service training position as required during her third year, and so unable to finish her degree, she took on various administrative jobs until she had saved enough money to return to university, this time to study psychology.

She moved to UCT for her honours year. She was taught, and later supervised by, Professor Cheryl de la Rey, who was doing the kind of feminist psychology work she

was interested in. This would prove pivotal to her academic journey.

She began her research into intimate partner violence, which was the subject of both her master's and PhD research.

"I think what's important in terms of some of the work that I've done is that men don't see themselves and their lives represented in the intervention efforts meant to change their behaviour.

"We need more narrative approaches that involve understanding men and, of course, understanding men in the context of their lives."

We can use this to better inform interventions, she said.

Rewriting his own story

ASSOCIATE PROFESSOR JOHN ATAGUBA is a Commonwealth Scholar, a member of the South African Young Academy of Science, a Mandela Mellon Fellow and a recipient of a National Science and Technology Forum Emerging Researcher Award and the Claude Leon Merit Award for Young Lecturers.

But, said Ataguba, none of these have meant as much as receiving the news that he had been accepted to the University of Nigeria as an undergraduate student.

As the son of a civil servant, there was no money for a prestigious Lagos high school, so his future depended on him getting excellent results in the national university entrance exams.

His first two attempts were

unsuccessful. In the third year the exam was cancelled. Finally, at age 20, he learned that he had won a place at the respected University of Nigeria.

"On that day, I made a vow to myself that I would rewrite my story."

He chose economics as his area of study. Four years later, he graduated top of his class, department and faculty.

He remembers having a sense of disbelief that he had made it that far.

Self-discovery

He arrived at UCT in 2005 and here he discovered two things: a love of teaching and an interest in the economics of healthcare systems. He knew that the

second was a result of his own experience of inequality in a childhood spent moving between rural towns in north-central Nigeria.

In 2011 he was awarded a Commonwealth Scholarship that supported his doctoral studies.

He graduated in 2012. "My wife was pregnant with our second child, so I had a very important deadline."

In 2014 he was made senior lecturer and in 2017 an associate professor and director of the Health Economics Research Unit, and the recipient of a Mandela Mellon Fellowship to study healthcare reforms in South Africa and the United States.

"[Equitable healthcare] will remain my focus in the future."

Colleagues by day, students by night

Recently insourced colleagues are taking advantage of the Staff Learning Centre's after-hours matric and basic adult education and training pilot programmes.

JAMMIE SHUTTLE DRIVER ARNOLD WEPENAAR is one of five recently insourced staff who are tackling the one-year General Education and Training Certificate (GETC), a bridging programme for matric. And 30 others have enrolled for the two-year matric course – the Amended Senior Certificate.

Both pilot courses, funded by staff bursaries and convened by the Staff Learning Centre, kicked off in 2017.

Wepenaar sees the GETC course as a stepping stone to matric studies next year. He's amused that his plan has shocked his children.

"But Dad, you'll be going for your matric certificate when you're almost 60!" he mimics.

"This course gives me so much enjoyment because it doesn't just empower me, it empowers my family."

Earl Delpont of Properties and Services' campus cleaning team is tackling the two-year Amended Senior Certificate. The father of four dropped out of school at St Andrews High in Elsie's River in grade 10.

"I'm doing this not for myself. I'm doing this so I can give my kids a better shot at a better future."

Once Delpont has his matric certificate, he plans to study further on a part-time basis.

"It's never too late," he tells colleagues.

Family circumstances were responsible for Campus Protection Services' Nonkosinathi Silanbela dropping out of school in grade 10 in 1998.

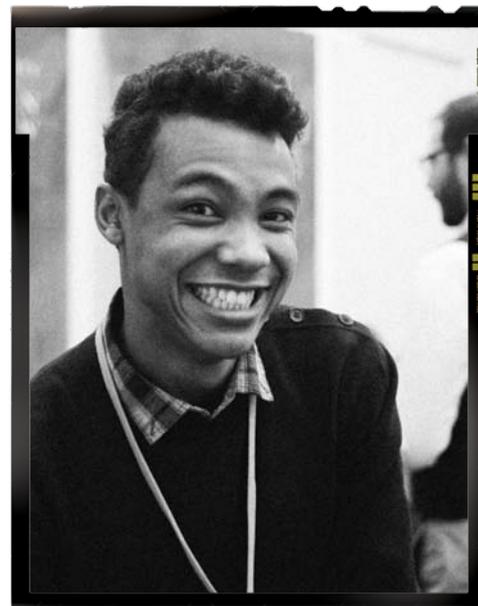
"When I saw an opportunity to do grade 12, I thought to grab it with both hands."

She is hoping that a matric certificate will be a springboard.

"I do have bigger dreams. I want to work in human resources. That's one of the motivating factors."



Members of Properties and Services outside Cambria House where they are tackling after-hours matric and basic adult education and training pilot programmes.



The province's best librarian

UCT LIBRARIAN JEREMIAH PIETERSEN

was the winner of the Western Cape Librarian of the Year Award as well as second runner-up for the Library and Information Association of South Africa (LIASA) Librarian of the Year 2017 award. Pieterse, who currently works in the UCT Libraries as a junior librarian in subscriptions, won the Sabinet-sponsored award in October.

"It is really an honour to have been considered for the award of the LIASA Librarian of the Year – an award of prestige in the library and information sector in South Africa.

"I think being awarded the second runner-up for the National Librarian of the Year award while being at such an early stage in my career is a reflection of the opportunities – both for development and to participate in the activities of the professional body – afforded by my employer, UCT Libraries, and UCT."

"It is really an honour to have been considered for the award of the LIASA Librarian of the Year – an award of prestige in the library and information sector in South Africa."

Inaugural lectures 2017

Inaugural lectures are held to commemorate an academic's appointment to a full professorship and to allow them a platform to present their body of research. 2017 saw two academics presenting their inaugural lectures.



Genevieve Langdon's lecture, "Explosion protection: reality or fantasy?" focused on the material improvements required to reduce the effects of explosions and, ultimately, save lives



Ulrike Rivett's lecture, "ICT for development: the good intentions of the mobile phone", considered the complexities that came with the information communication technologies that were supposed to fast-track African development.



THE YEAR IN PHOTOS





The cast of *The Fall* scooped up two awards during its acclaimed run at the 2017 Edinburgh Festival Fringe. Photo Oscar O’Ryan.



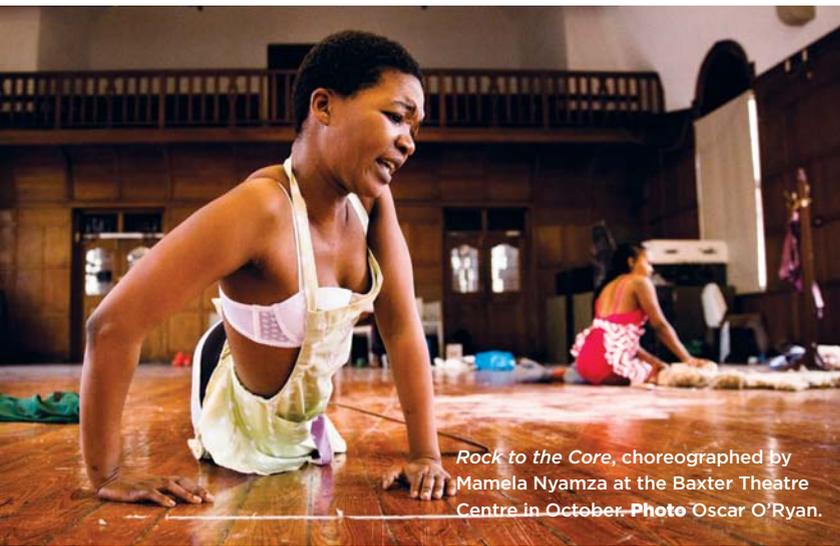
This student’s delight was multiplied many times as first-years on financial aid received free laptops.



Orientation Week campus tours for first-years.



An installation from the annual Michaelis School of Fine Art collaborative public arts project, which looks at the interplay between art, public space and gender-based violence.



Rock to the Core, choreographed by Mamele Nyamza at the Baxter Theatre Centre in October. Photo Oscar O’Ryan.



The renamed Vincent Kolbe Knowledge Commons honours ‘the people’s librarian’.



Baxter CEO and director Lara Foot brought six Baxter productions to the 2017 Edinburgh Festival Fringe, including three original works of her own. Photo Oscar O’Ryan.



The Silent Protest raised awareness about sexual violence on campus.



The unstoppable Mpumelelo Mhlongo, who was awarded Sportsperson of the Year for the third year running at UCT's annual sports awards dinner on 3 November.



After winning the Cape Town League, the National South African League and the All Africa League, UCT's Ultimate first team is officially the best on the continent. Christine Court was part of the winning team. Photo Larrisa Armstrong.



The UCT Cycling Club raced around picturesque Mauritius for the gruelling Tour de Maurice in early September.



Ikey's supporters celebrate 10 years of Varsity Cup rugby at Florida Park in Ravensmead during UCT's first game in January.



The UCT Football Club's women's first team were crowned the 2017 SAFA Cape Town Regional Women's League champions, losing only one match on their march to the title.



Students warming up before the proper training begins with UCT Kickboxing.



RESEARCH & INNOVATION

THIS PAST YEAR was one in which research at UCT demonstrated that it was worthy of the three words that summarise the university's aspirations in its strategic plan: to be "inclusive, engaged and African".

Two innovations that embody these aspirations and gained enormous traction in the media - new and old - were the discovery of the heart-attack gene and the development of a new ranking that shows which South African banks contribute most to systemic risk. The excellence of the research alone makes these two findings stand out, together with the potential impact; but I believe that a great deal of the excitement around this research is because the researchers represent the future. The team that discovered the heart gene, for instance, consisted of three young South African women scientists - one of them a postgraduate.

We have spent the past year working hard at ensuring that research at UCT is increasingly inclusive, starting with our postgraduates. These young people are both the foundations on which so much of our current research is built and the promise of research excellence in the future. It is our job to inspire them, but also to enable their success through sufficient funding and training.

If we get that right, we will produce more of the research that is not only excellent and exciting, but that leads from the front in finding solutions to the grand challenges of our time - from the future of water to making malaria a disease of the past.

PROFESSOR MAMOKGETHI PHAKENG
DEPUTY VICE-CHANCELLOR FOR
RESEARCH AND INTERNATIONALISATION



Mars rover mission

In a first-for-Africa mission, UCT students piloted the Mars rover using something slightly surprising: an Xbox controller.



Mission Control rover sitting atop a lander at the start of simulated Mars mission. Photo Paul Rocco.

"SPAM ONE IS EXPERIENCING MAJOR TELECOMMUNICATIONS PROBLEMS. We're not sure if they realise it yet," said Ewan Reid, sitting in a makeshift ground control centre in Professor Peter Martinez's office in the Menzies Building.

Reid is president and CEO of Mission Control Space Services and lead designer on three rover prototypes for the Canadian Space Agency and a NASA shuttle mission controller. His company has been giving students at select universities around the world a chance to pilot the rovers and act as a dry run for the company's actual outer space explorations.

The 'astronauts', Martinez's cohort of space science master's students, were 'orbiting Mars' in a makeshift spacecraft in the SpaceLab in the Menzies Building while the rover rumbled along a Mars-like terrain at the Canadian Space Agency outside Montreal.

Their mission? To find a safe spot to land on the red planet.

But the six astronauts, the Space Pioneers Analysing Mars, or SPAM, didn't notice that

their speakers had stopped working. They missed messages from ground control for well over a third of the three-hour mission before fixing the problem.

They were also subjected to a 'dust storm' to see how they dealt with this inevitable feature of life on the desert planet. Their five-minute warning wasn't enough time for the sluggish rover, and SPAM's front cameras dimmed and then both cameras went out completely. So the team had to feel their way around the last minutes of the mission purely by LIDAR, a form of laser-based radar.

"That's the interesting thing about this kind of simulation," said Reid afterwards. Mission Control caused the 'storm', but the camera failure was unplanned and unexpected, as was a laptop crash.

"There are some simulated failures and some real failures, and all of them go together to make a fairly realistic mission, in that sense."

In the end, the students found two possible landing spots, and their mission was accomplished.



Maryam Fish, Gasnat Shaboodien and Sarah Kraus, the all-women team of researchers who made the discovery of the CDH2 gene.

A new heart-attack gene

Researchers at UCT, through global collaboration, have identified a new gene that is a major cause of sudden death among young people and athletes.

PHD STUDENT MARYAM FISH, DR GASNAT SHABOODIEN AND DR SARAH KRAUS were the members of the all-women UCT team that made the discovery.

The gene, called CDH2, is found in everyone, but a mutation causes a genetic disorder known as arrhythmogenic right ventricle cardiomyopathy (ARVC), which increases the risk of heart disease and cardiac arrest.

In ARVC, the heart tissue is replaced by fatty and fibrous tissue. This causes rapid heart rhythm (cardiac arrhythmias) or rapid and erratic heart rhythm (ventricular fibrillation), which can cause sudden death in minutes.

The discovery, which was published on 9 March 2017 in *Circulation: Cardiovascular Genetics*, is the result of international collaboration that began 20 years ago. It was led by a South African team headed by Professor Bongani Mayosi, dean of UCT's Faculty of Health Sciences.

"This discovery is a first in the world – on our soil – and will permit the diagnosis and possible targeted treatment of heart muscle disease in the future," said Mayosi.

The identification of the CDH2 gene will help clarify the genetic mechanisms underlying ARVC, and will make early detection of the disease possible.

Preventive strategies

Often, the diagnostic clinical signs of the disease only become clear after many years. However, if a subject with ARVC is a carrier of a mutation of the CDH2 gene, other members of their family who are genetically affected can be identified and preventive strategies can be started.

According to Shaboodien, whole exome sequencing – the technique the researchers used to find the gene – was unheard of seven or eight years ago.

"Suddenly with technology you are able

to screen 19 000 genes within a matter of hours. We called it genetics on steroids."

After the sudden death of a 22-year-old member of a South African family affected by ARVC that had experienced several other cases of juvenile sudden death, two cousins were identified as carriers of ARVC.

"We sequenced all the genes in the human genome in two cousins who were affected," said Fish. "We then looked for common variants and had a list of 13 000, which we narrowed down through a series of filtering criteria to the CDH2 variant, which was the most likely causal variant in this family."

The discovery of this gene was validated by finding a second mutation of the same gene in a number of unrelated individuals who also had ARVC.

"None of this would have been possible without the families and people willing to allow us to explore their families and screen them," said Kraus.

Which SA banks contribute most to systemic risk?

TWO STUDENTS FROM UCT designed South Africa's first systemic risk ranking, which outlines what could happen in a financial crisis and identifies who is putting the system most at risk, and why.

The new SA Financial Institution Systemic Risk Ranking, designed by PhD candidate Qobolwakhe Dube and master's student Trésor Kaya from UCT's African Institute of Financial Markets and Risk Management, highlights some of the dangers and risks facing South Africa's banks.

It rates South African financial institutions according to their contribution

to systemic risk – the likelihood that the failure of a bank would lead to the failure of the financial system as a whole.

Systemic risk is affected by factors like the company's share price, activities the bank engages in, its liabilities and to whom it owes money.

The ranking is an adaption of the SRISK model developed by Nobel laureate Robert Engle from New York University's Stern School of Business following the financial crisis of 2008.

"It is especially valuable for policy makers and regulators to know which

companies contribute most to systemic risk and may be in need of additional scrutiny," said Kaya.

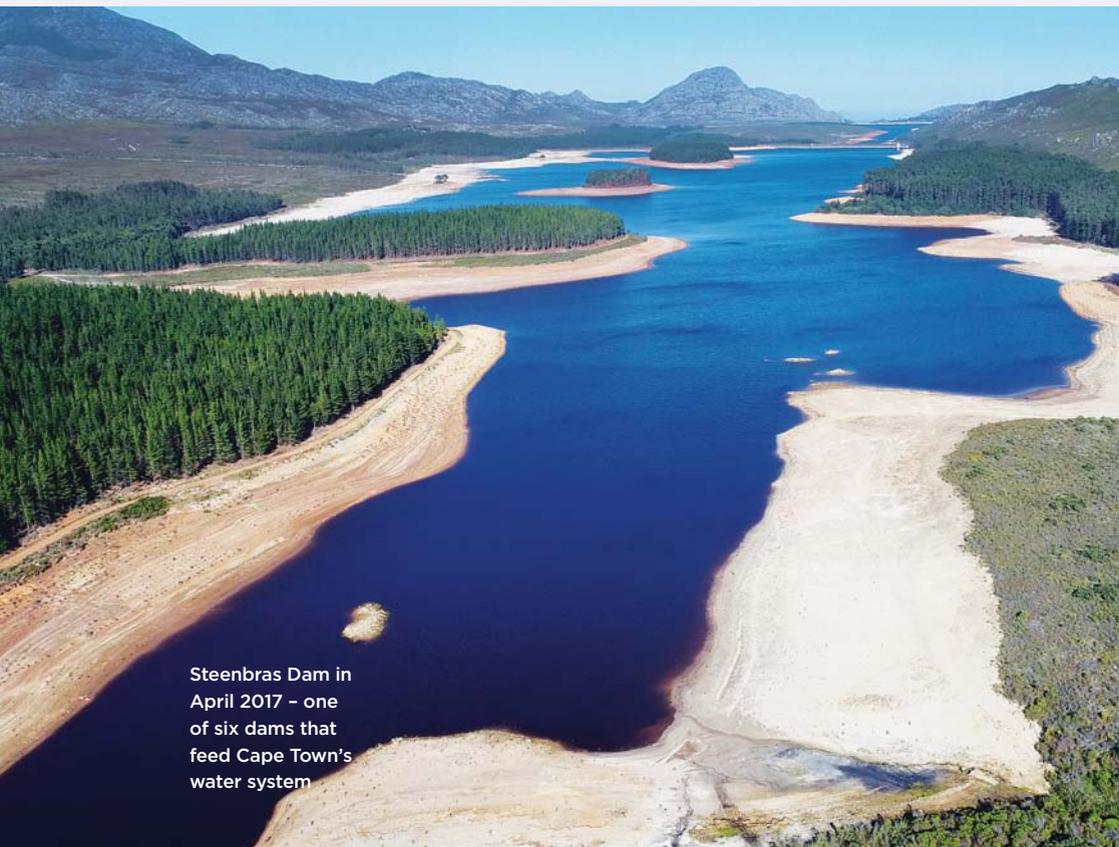
The point of the ranking is not to identify institutions that are at risk of failure, but institutions that would have the greatest impact on other institutions should they fail.

"It ... shows that only three financial institutions constitute up to 50% of all systemic risk in South Africa," said Dube.

Dube and Kaya intend updating the ranking frequently and have made the code they used freely available as open source.

Water and sustainability

At UCT the water crisis captured new thinking on ways to improve water management and incorporate plans for alternative water sources. The crisis focused many UCT researchers on water research projects, including innovative work on creating bio-bricks and fertiliser from urine, exploring drought-tolerant crops, and the possibility of aquifer recharge management. In September UCT's Future Water Institute was launched. This institute will be integrating technical, social, environmental, health sciences and economic disciplines to address issues of water scarcity in South Africa. The principles of water-sensitive design are now ever more pertinent in directing the university to become a leader in water sustainability.



Steenbras Dam in April 2017 - one of six dams that feed Cape Town's water system

Can suburbia save the day?

DO YOU LIVE IN ONE OF CAPE TOWN'S GREEN AND LEAFY SUBURBS? Then you have the power to make a difference to Cape Town's current water crisis, said Professor Neil Armitage, director of the Urban Water Management research unit and deputy director of the Future Water Institute at UCT.

Six reservoirs supply Cape Town with the approximately 300 million cubic metres of water the city uses each year. This represents around 60% of the water stored in these reservoirs. A further 30% is used by agriculture, and the rest by neighbouring municipalities.

Cape Town's water systems lose 15% through leaks and unaccounted-for demands. If this sounds like a lot, Armitage claims otherwise: "A 15% loss of water through leaks is in fact world class. If you look at the national average, it's sitting somewhere around 36%."

Of all the metered water (excluding

leakages) used by Cape Town in a 'normal' year, 4.7% is used by informal settlements; 15% by retail, offices and manufacturing; 7.7% by government and government facilities; and 6.2% is classified as "other" uses.

That means the remaining 66%, ie two-thirds, is used by formal residential areas. If you live in a house, especially if that house has a garden or a pool, that means you.

"By far the most water - 55.5% in 2015/16 - is used by the residents of Cape Town's leafy suburbia - a lot of which goes into keeping the gardens looking good, filling swimming pools, etc.

"Of course we must look at all possible sources of supplying water in the future, including storm-water harvesting, desalination and water treatment. But those large infrastructure projects will take years to complete, so in the short-term ... we are going to have to make the change ourselves and just use less water."

New smart crops for Africa

Developing smart crops in Africa is critical in an era of climate change, says UCT plant molecular physiologist Jill Farrant.

IF CLIMATE CHANGE CONTINUES

UNCHECKED, it is predicted that by 2050 most of South Africa (and the global south) will be desert.

According to Farrant, "There are no crops we yet know of that can lose an extreme amount of water (desiccation) and not die. Increasing and prolonged droughts will threaten the very base of the food chain."

Smart crops, like tef, may be the answer.

Farrant's students are studying a close relative of tef, a grain that serves as the main food source in countries like Ethiopia. This 'resurrection' relative is being analysed to identify the properties that make it more drought tolerant.

Her research has shown that the genetic survival mechanisms found in resurrection plants are like the desiccation processes found in seeds.

"All our crops produce desiccated seeds and thus have the genetic mechanisms to make seed tissue dry without them dying."

What resurrection plants appear to be doing, said Farrant, is "turning on" those seed genes in their roots and leaves when faced with severe drought.

The challenge is to unlock these mechanisms to turn on these genes in their roots and leaves to induce the same process in dry times to make crops more drought tolerant.

Farrant's focus is on orphan crops - those that haven't taken off commercially. These include local varieties of fast-growing beans - cowpea, black-eyed beans and Bambara beans - all important protein sources for Africa.

"Though plants form the basis of the food chain, they don't survive without water, and in Africa 85% of agriculture is based on rainfall," said Farrant.

"We need a combined effort by water and plant researchers, augmented by new, creative water-harvesting and irrigation techniques . . . And we must look to nature for ideas on how to trap water."

Liquid gold

Waterless toilets feeding home-based fertiliser factories? Houses built with bio-bricks made from urine? Four final-year civil engineering projects showed the way, with a Greenovate award to boot.

THE PROJECTS DEMONSTRATED THE BENEFITS of introducing waterless urinals that not only save water, but recover sustainable resources from this liquid gold: urine.

Two of the projects – a fertiliser-making urinal and bio-bricks made from urine – were nominated for the 2017 Greenovate Awards.

Senior lecturer in civil engineering and project leader Dr Dyllon Randall spent two years at the Swiss Federal Institute of Aquatic Science and Technology working on the Reinvent the Toilet Challenge.

“The idea was that a toilet should be self-sufficient; it shouldn’t need to be connected to a sewage system. We should treat our ‘waste’ within the toilets and recover value from them.”

In Switzerland, he’d focused on recovering fertiliser from urine and this sparked the idea of using the urea in urine to make bio-bricks through a natural process called microbial carbonate precipitation.

So, he put the idea to his final-year students for their research projects.

Craig Flanagan’s project, which won him a prestigious 2017 Greenovate Award, investigated the production of fertiliser from a waterless urinal housing calcium hydroxide. Producing calcium phosphate from collected urine, the urinal recovered over 97% of the phosphorus present as calcium phosphate. (Phosphate is a key ingredient in fertilisers that underpin commercial farming worldwide.) This is especially significant because natural phosphate reserves are predicted to run dry in the next 50 years.

Suzanne Lambert used the remaining urine to produce a bio-brick with the same compressibility strength as conventional 40% limestone bricks. But there’s more: by-products of the bio-brick process include nitrogen and potassium, two additional key ingredients in commercial fertilisers.



Making every Drop Drop count

Created by the Information for Community Services (iCOMMS) interdisciplinary team, Drop Drop is a new app that assists in tracking daily water usage, predicting monthly bills and learning new ways to conserve water.



Brace for frequent extreme weather

SEVERE DROUGHTS like the one currently crippling the Southwestern Cape’s water supply might become much more frequent as global warming impacts on regional climate, says Professor Mark New, the first holder of the new AXA Chair in African Climate Risk.

The AXA Chair, launched on 6 April 2017, will fund 15 years of research that will inform better management of climate change risks. New’s area of climate science research is called detection and attribution.

“It’s basically asking to what extent greenhouse gases are changing the climate risks that we’re exposed to,” explained New, who directs UCT’s African Climate and Development Initiative.

As well as droughts, these risks include heavy rainfall events that cause flooding.

If the risks are changing – and the research suggests that they are – the way we manage those risks must change, too, said New.

Take the Western Cape’s water supply as an example.

The province draws the bulk of its water from a man-made network of supply from several main dams. It is designed to be reliable – not run out of water – 49 out of every 50 years, on average. It’s thus designed for 49 reliable yields every half-century.

But with more frequent, or more intense, droughts a real possibility, especially when these droughts last for two or more years, the system might be in need of rethinking, said New.

“We can think of the situation in terms of distal and proximate risks.”

The distal risk is global warming changing climate and rainfall. The proximate risks involve the ways that people-made landscape systems affect our sensitivity to the climate events that we cannot directly control.

“So we’re also interested in how the human management of the landscape is changing the sensitivity to those external rainfall events and how we can change the landscape to reduce that risk.”

RESEARCH BY NUMBERS



Taking advantage of expanding global networks and our distinct vantage point in Africa, UCT is committed to grappling with the key issues of our natural and social worlds through innovative research and scholarship. The university is committed to encouraging and protecting curiosity-driven research, as well as research that has a real impact on our communities and environment.

CENTRES OF EXCELLENCE

UCT is home to two Department of Science and Technology / National Research Foundation (DST/NRF) Centres of Excellence. These centres reside in University Research Committee-accredited research groupings, which strengthens their identity and branding, and provides an officially recognised platform for collaboration.

- 1 DST/NRF Centre of Excellence in Birds as Key to Biodiversity Conservation (Percy FitzPatrick Institute of African Ornithology)
- 2 DST/NRF Centre of Excellence in Catalysis c*change (Centre for Catalysis Research)



Formal international partners



Global university networks

As a leading university in Africa, UCT plays a vital role in connecting institutions in the global north with its extensive research collaborations across Africa. This allows the university to draw international expertise to the continent, and to ensure that an African voice is present in global debates. To further these ends, UCT is a member of a carefully targeted number of formal networks:

- African Research Universities Alliance (ARUA)
- International Alliance of Research Universities (IARU)
- Worldwide Universities Network (WUN)
- Southern African-Nordic Centre (SANORD)
- Australia-Africa Universities Network (AAUN)



New NRF A ratings for 2017

-  **PROF PETER RYAN**
Percy FitzPatrick Institute of African Ornithology
-  **PROF ANUSUYA CHINSAMY-TURAN**
Department of Biological Sciences
-  **PROF KELLY CHIBALE**
Drug Discovery and Development Centre
-  **PROF KEERTAN DHEDA**
Department of Medicine

African connections

UCT fosters a range of partnerships to strengthen capacity across the continent:

33%

A third of the country's NRF A-rated researchers, who are international leaders in their fields, are at UCT.

The MasterCard Foundation Scholars Program allows UCT to recruit, educate and mentor talented students from economically disadvantaged backgrounds in Africa.

The Carnegie Project: Growing the Next Generation of Academics for Africa runs at UCT, the University of the Witwatersrand, Makerere University (Uganda) and the University of Ghana. It aims to train a community of future academics.

The Universities Science, Humanities, Law and Engineering Partnerships in Africa (USHEPiA) aims to build institutional and human capacity at African universities by promoting collaboration among African researchers, and the generation and dissemination of knowledge among African universities.

The Africa Regional International Staff/ Student Exchange (ARISE): Food Security and Sustainable Human Wellbeing programme aims to increase access to quality education in Africa by promoting postgraduate studies, student retention and staff mobility.

*These figures were unaudited at the time of going to print and may be subject to change.

Leading researchers

15% of the NRF-rated researchers in South Africa are at UCT.

542 NRF-RATED SCHOLARS

By rating

| A rated | B rated | C rated | P rated | Y rated |
|---------|---------|---------|---------|---------|
| 41 | 168 | 240 | 8 | 85 |

A rated – leading international researchers
B rated – internationally acclaimed researchers
C rated – established researchers
P rated – prestigious awards
Y rated – promising young researchers

By faculty

| | | |
|---|-------------------------------------|----------|
| Humanities | Law | Science |
| 89 | 19 | 175 |
| Health Sciences | Engineering & the Built Environment | Commerce |
| 145 | 61 | 43 |
| Centre for Higher Education Development | | |
| 10 | | |

10 458
postgraduates

Honours: 1 513

Master's: 5 288

PhD: 2 069

PGDip: 1 588



355
Postdocs

Patent applications filed

| | | |
|------|------|------|
| 2015 | 2016 | 2017 |
| 56 | 67 | 72 |

19% The South African Research Chairs Initiative (SARChI chairs) strengthens the country's ability to produce high-quality research, innovation and students. 19% of the country's SARChI chairs are held by researchers at UCT.

39 SARChI chairs

Humanities: 4
Law: 3
Science: 12
Health Sciences: 11
Engineering & the Built Environment: 7
Commerce: 2

11 new UCT Fellows were inducted into UCT's prestigious College of Fellows.

4 spin-off companies



2 363

research contracts signed



>R100 million equity in spin-off companies



R1.39 billion value of research contracts signed
 R989 million foreign
 R399 million local

41 invention disclosures
R3.58 million earned in income from intellectual property



“The creation of new knowledge is a global project: the challenge for Africa is that our voice in this area is all too often missing, yet that voice is critical to the solution of the world's wicked problems. UCT can play a vital role, through our strategic formal networks and partnerships, in ensuring that our students and researchers are exposed to opportunities around the world so that they can play their part on the global stage.”

Professor Mamokgethi Phakeng

Deputy Vice-Chancellor for Research and Internationalisation

RANKINGS



QUACQUARELLI SYMONDS (QS) WORLD UNIVERSITY RANKINGS
 1st in Africa
 191st in the world

QS WORLD UNIVERSITY RANKINGS BY SUBJECT
 10th in development studies
 47th in geography

QS BRICS UNIVERSITY RANKINGS
 1st in South Africa
 1st in Africa
 19th in the World

TIMES HIGHER EDUCATION BRICS AND EMERGING ECONOMIES UNIVERSITY RANKINGS
 4th in the world

CENTRE FOR WORLD UNIVERSITY RANKINGS
 259th in the world

CENTRE FOR WORLD UNIVERSITY RANKINGS SUBJECT RANKINGS
 3rd in ornithology
 4th in area studies

SHANGHAI RANKING'S GLOBAL RANKINGS OF ACADEMIC SUBJECTS
 8th in mining and mineral engineering
 40th in public health



TEACHING & LEARNING

THAT TEACHING AND LEARNING HAS A CENTRAL PLACE in the university's strategic plan should be entirely expected. In addition to being the focus of one of the plan's five major goals, initiatives pertaining to teaching and learning connect intimately with each of the other four goals.

Thus UCT commits itself explicitly to renewal and innovation in teaching and learning, including the curriculum. This includes improving student success rates and well-being, broadening academic perspectives, stimulating social consciousness and cultivating critical citizens.

Much of the groundwork for various innovations is already in place. A number of initiatives embraced digital tools to enhance the learning experience and to improve access, including lecture videos and podcasts, blended learning and a series of highly successful MOOCs.

The Multilingualism Education Project continues to contribute substantially towards the goal of promoting the use particularly of African languages, whether in informal contexts or formal learning.

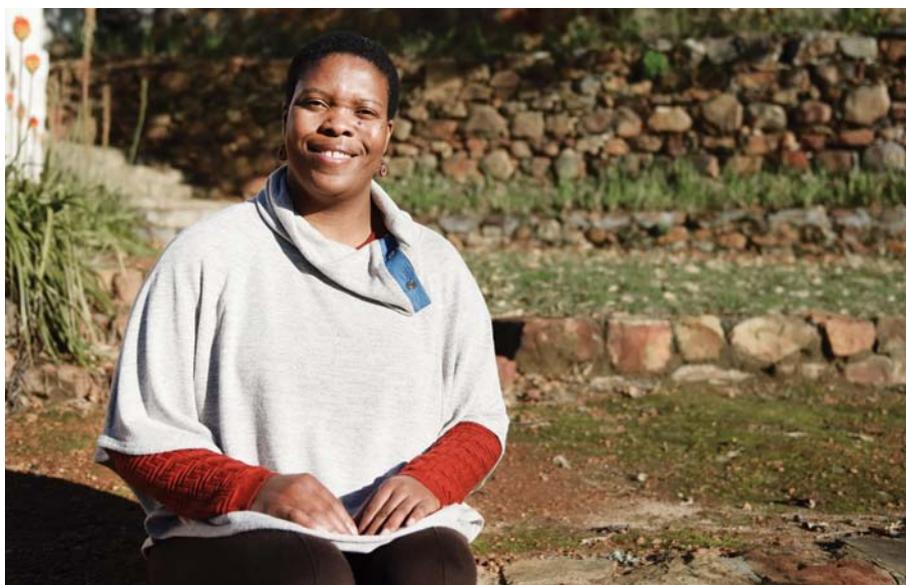
In continually seeking to improve our teaching, we draw inspiration from the outstanding example set by our Distinguished Teacher awardees. Their ingenuity, commitment and ability to inspire students serve as wonderful examples to all involved in teaching.

PROFESSOR DAYA REDDY
ACTING DEPUTY VICE-CHANCELLOR
FOR TEACHING AND LEARNING



Translating a path to success

From teaching interventions to the development of isiXhosa reading and teaching material, Xolisa Guzula is a force of change within the South African education landscape.



HAVING STUDIED BOTH ENGLISH AND ISIXHOSA during her bachelor's degree, Guzula was equipped for her career as a translator, multilingual teacher trainer and as a formidable researcher in biliteracy development.

As a 21-year-old researcher, she was trying to uncover why so many students were 'over-aged' within the schooling system. The culprit was language. Students struggling with English failed, repeated, dropped out and came back to school years later. Guzula's own teacher training assumed she would teach English-speaking children.

When she began working at the Project for the Study of Alternative Education in South Africa (PRAESA), she applied biliteracy strategies and multilingual teacher training. She also began translating.

"We promoted biliteracy, but we had no isiXhosa books. So I learned on the go."

Her latest success is a translation of Lucy and Stephen Hawking's *George's Secret Key to the Universe*.

Guzula has now returned to UCT to tackle her PhD in language and literacy and bilingual education.

The abrupt switch to English medium in grade four presents problems for learners, she explained. As English and isiXhosa are taught separately, it is difficult for children to transfer knowledge between the languages. But Guzula and her PRAESA colleagues found that children taught English, isiXhosa and Afrikaans together in one language class could read and write in all three by grade six.

She is passing on these strategies in her current role, teaching the Postgraduate Certificate in Education (PGCE) foundation phase class at UCT. She aims to train soon-to-be teachers to be aware of diversity within the classroom and to work multilingually.

When you work in this way, she explained, all children are included in the classroom. They are all heard and are able to participate.

A SNAPSHOT OF 2017

The first **New Academics' Transitions Regional Colloquium** was held at UCT, bringing together 66 teachers from four Western Cape Universities.

The **Open Educational Resources for Development (ROER4D) project** completed its work in December 2017. It set out to better understand the impact of open educational resources (OER) in selected countries in South America, Sub-Saharan Africa and South and Southeast Asia.



3 interdisciplinary and cross-departmental teams received **Collaborative Education Practice Awards**, which recognise excellent collaborative approaches to enhancing teaching and learning at UCT.



250 members at the UCT community attended the **2017 Teaching and Learning Conference**, which had 39 presentations to choose from.

Four new **MOOCs (massive open online courses)** were launched in 2017, bringing the UCT total up to 11.



185 000 learners from about 180 countries - including the United States, Brazil and Poland - have participated in UCT's MOOCs.

90 classrooms were upgraded as part of the *Classroom Renewal Project*, which was finalised in 2017 at a cost of **R102.6 million**. This means that:

88

have lecture recording facilities

37

have induction loop technology

79

have custom-designed motorised lecterns

18 Teaching with Technology Grants -

aimed at encouraging UCT educators to integrate educational technology into their courses - were awarded to the value of R478 087.



964 laptops were provided to financially eligible first-year students to assist

with their studies, funded largely from the Vice-Chancellor's Strategic Fund.

1 500 students from over 20 countries received training and capacity building through more than 30 different Design Thinking programmes at the Hasso Plattner School of Design Thinking (d-school).

80 000

first-years wrote the **National Benchmark Tests**, as facilitated by the Centre for Educational Testing for Access and Placement (CETAP) at UCT.



Partners in care

DR RACHEL WEISS AND DR NATASHIA MUNA, together with colleagues from Health and Rehabilitation, Disability Studies, African Languages and the Intervention Programme, are forging a new path in medical teaching with the Patient Partner Programme.

Medical students interact minimally with patients during the first years of study. By the time they can engage with patients, there are few opportunities for observation and feedback from staff. More importantly, there are no formalised opportunities for feedback from patients.

Weiss has a specific interest in patient-centred communication and believes these gaps are especially problematic as many South African patients feel disempowered in the healthcare setting.

"Patients are often seen by multiple students who need to 'practise' their communication and examination skills, with the patient's consent, of course. However, you have to understand that 'consent' in the context of the history of our country," she said.

Experts by experience

This is why Weiss advocates for her simulated Patient Partner Programme, which is focused on the authentic representation of patients in the fullness of their personal, social and economic contexts.

"For us, the authenticity of someone's real life is most important, because we want to tackle contextual issues that manifest in the healthcare encounter around power, privilege, gender."

Patient partners are "experts by experience", said Weiss. This project emphasises the value that both the patient and the healthcare practitioner bring into the dynamic.

"We would be completely naive if we thought we could 'equalise' the power between a patient (who may have limited education) and the medical specialist (who is most likely from a different socio-economic, cultural or even language background).

"However, we can train both parties to have respect for the experience the other person brings. Specialist medical knowledge and skills are essential, but they only have value if the patient participates consistently in the diagnostic and treatment process," she explained.

Patient partners will help students practise skills, provide feedback and participate in curriculum design.



The heart of pedagogy

"For real transformation to happen, we need to position the student differently to the knowledge – they need to feel themselves 'in' the knowledge."

Distinguished Teacher Award winner Dr Janice McMillan's work is not discipline-specific; rather it's about transformative teaching and how we engage the wider world beyond the university.

Your work falls under the umbrella of 'transformative teaching', which is focused on nurturing socially conscious citizens. How do you teach these things?

This is a difficult question, partly because I work in the Centre for Higher Education Development (CHED) and so I work across departments and disciplines. However, community engaged pedagogy is not widespread in higher education.

My sociology discipline is very helpful in thinking about issues of power and how this positions us all, particularly in pedagogical spaces. However, the more I understand my role and self as a teacher, the more I think about the relationship between my discipline and my humanity.

In my teaching work, therefore, I engage my discipline through how I understand my humanity, through how I want to be in the world, rather than letting it shape how I engage my humanity. And so the work

that I do in community engaged learning constantly asks of me to think about myself, my students and my community partners as citizens engaging the world, hopefully as active citizens.

I therefore see my students simultaneously as students, emerging professionals and citizens. This in turn gives students a sense of agency and an idea of themselves that is bigger than just who they are in their discipline. If we make visible the relationship between student agency and knowledge, students' agency is given space to develop.

Are there hallmarks of good teachers across disciplines?

The issue of intentionality is very important as a teacher, and perhaps this is one of the hallmarks of a good teacher. I engage my students intentionally, taking cognisance of the relational aspects of teaching and learning. I think good teachers strive to

engage their students intentionally and holistically – and in my case, not only as learners but as active citizens as well. I value their human being, their diversity and their voices.

For me, therefore, students, not knowledge, need to be central to the pedagogy. They need to be at the centre of our engagement and we need to learn from them. So often we start with the knowledge, neglecting to realise that students are not empty vessels when they enter our classrooms. We need to find ways to surface the knowledge they already come with.

What 'floats your boat' in your job?

Working with different students from all backgrounds and watching them engage with each other. My teaching involves very little lecturing and far more group work, so seeing students 'teach' each other, and then reading about it in their essays, is deeply gratifying.

Distinguished teachers

THE DISTINGUISHED TEACHER AWARD is the highest accolade bestowed to teaching staff at all levels within the university. Through the awards, UCT acknowledges the primary place of teaching and learning in the university's work. The winners of the 2016 awards, presented in 2017, were:



ASSOCIATE PROFESSOR RYAN KRUGER: Department of Finance and Tax
Associate Professor Ryan Kruger's teaching philosophy promotes critical and logical thinking, and encourages students to formulate their own opinions.



DR MIGUEL LACERDA: Department of Statistical Sciences
Dr Miguel Lacerda's objective is to communicate content in a manner that makes it accessible and meaningful. "It is my job to bring this material to life."



The MTN Solution Space team at Philippi (from left) Tsepo Ngwenyama, Sivu Nomana, Ndileka Zantsi, Sarah-Anne Arnold and Simnikiwe Xanga.

Multilingualism: the African lingua franca

“THERE IS A DIFFERENCE BETWEEN understanding a concept and *getting it*.”

So explains Associate Professor Mbulungeni Madiba, who, as the point person of the university's Multilingualism Education Project (MEP), has a wealth of insight into multilingual students' difficulties in a largely monolingual environment like UCT.

When a student understands content, they can store it for the purposes of reproduction. But this is not the same as “getting” or internalising it. This is where translation can help.

The MEP therefore began with glossaries created for so-called ‘killer courses’ that can impede graduation, focusing first on subjects like statistics and later branching to the social sciences.

This led Madiba to Dr Ellen Hurst and Dr Shannon Morreira, who convene courses in the Humanities Education Development Unit.

Recognising the importance of a learning environment that works for all students, the team co-authored a chapter titled “Surfacing and Valuing Students’ Linguistic Resources in an English-dominant University”, which was published in *Academic Biliteracies: Multilingual Repertoires in Higher Education*.

It outlines the value of multilingual resources in learning, by bringing complex social histories to bear on abstract academic content.

They propose this be done through a process called translanguaging.

“We need to shift away from the idea that teaching involves only one language,” said Madiba. “Those who introduced these systems of education came from a background where there was only one national language. This is not the case in South Africa.”

Students arrive at university with valuable linguistic resources that can be used powerfully in thinking through concepts.

“We just pretend, once they are here, that they are all monolingual,” Madiba said.

Yet this study shows that some students are able to engage in up to seven different languages. Translanguaging will allow them to draw on those resources in the classroom.

And once you take away the issue of language, what remains is meaning making.

Breaking the mould

The launch of the Graduate School of Business’s (GSB) Solution Space in Philippi Village brings the university’s business resources directly to the communities of Philippi, Nyanga, Gugulethu, Mitchells Plain and Khayelitsha.

UCT HAS BEEN ACTIVE IN TOWNSHIP COMMUNITIES for some time with field sites, mobile health clinics and education programmes. But with the launch of its first ‘community campus’ in Philippi Village, the GSB has begun to achieve its long-term goal of getting stakeholders and students to interact beyond the traditional spaces of the university.

The communities are home to a large youth population and experience high unemployment, but the vision is to create economic opportunities for those who are excluded from mainstream development. The Philippi campus offers students, alumni, clients and local entrepreneurs a place to meet and engage.

It’s a new model for the traditional university space; a two-way engagement between UCT and the community.

For Associate Professor Mills Soko, the director of the GSB, the Philippi campus

deepens roots in the community and the GSB’s relevance as an African business school while developing more socially relevant solutions to African challenges.

“The GSB is widely regarded as the leading business school in Africa, but its location at the V&A Waterfront is far from representative of the reality that the vast majority of South Africans face every day,” he said.

Students from the GSB’s Breakwater campus now attend courses at the Philippi campus. Soko believes this ‘transfer’ is essential if students are to become “comfortable with uncertainty and paradox in a complex and fast-changing world”.

Soko also believes that the GSB is able to be more inclusive and involved in developing social innovations by working directly with entrepreneurs in the community.

“It’s a new model for the traditional university space; a two-way engagement between UCT and the community.”



DR JANICE McMILLAN: Centre for Innovation in Learning and Teaching

Dr Janice McMillan’s work is about transformative teaching across the faculties, and encouraging students to think about themselves also as emerging professionals and active citizens.



DR JONATHAN SHOCK: Mathematics and Applied Mathematics

Dr Jonathan Shock says he enjoys the challenge presented by teaching first-year mathematics: “How do I teach a class of 200 to 300 students who see this subject in such different ways?”



ASSOCIATE PROFESSOR JIMMY WINFIELD: College of Accounting

Associate Professor Jimmy Winfield runs a course called Business Ethics, which aims to open his students’ minds a little. He says he likes making “a real, positive difference”.



DR DAVID ERWIN: Mathematics and Applied Mathematics

Dr David Erwin strives to create a comfortable classroom, keep students focused and develop the structures they need to succeed. His students speak highly of his ability to keep them engaged.

EXCELLENCE

WE LIVE IN HUGELY CONTESTED TIMES.

The capacity almost instantly to reach massive audiences grows exponentially. Universities across the centuries have frequently offered a safe haven for dissidents to speak out, relatively immune from harsh physical or emotional reaction, protected to some extent by the notion of academic freedom and the good that can come from the frank and critical exchanges of ideas.

The last few years, however, have witnessed the closing down of space to ventilate unpopular or highly controversial ideas, and the imposition of a dogmatic political correctness which has silenced many, across all parts of the political spectrum. UCT has not been unaffected by this; but has simultaneously continued to produce outstanding individuals, be it graduates or staff, whose views have assisted in shaping the emergence of a wider consensus.

The articles which follow encapsulate much of what is good at the core of the university, celebrating excellence as it exists, yet noting the many challenges which, if not fully understood and addressed, will undermine the fearless expansion of the boundaries of knowledge.

PROFESSOR HUGH CORDER

ACTING DEPUTY VICE-CHANCELLOR
FOR INSTITUTIONAL INNOVATION



UCT's new Fellows

Eleven new Fellows were inducted into UCT's prestigious College of Fellows this year at a ceremony and dinner held on Wednesday, 11 October.



From left: Prof Peter Dunsby, Prof Lucy Gilson, Prof Graeme Meintjes, DVC Prof Mamokgethi Phakeng, Prof Bruce Hewitson, Prof Michael Lambert, VC Dr Max Price, Prof Malcolm Collins, Prof Chuma Himonga and Prof Chris Reason.

IN HER WELCOME ADDRESS, PROFESSOR MAMOKGETHI PHAKENG, deputy vice-chancellor for research and internationalisation, thanked the new Fellows "for the work you do because it's the work that you do that gives us a good name. It's the work that you do that makes people look at us. It's the work that you do that makes the world say that we are number one in Africa."

Commenting on the "bumper crop" of new Fellows elected, Vice-Chancellor Dr Max Price said, "These were not contested at all ... for every candidate the question was asked 'How come we didn't appoint them before?'"

Dr Price continued: "The research business of the university has continued to do incredibly well, and that's thanks to all of you. To the Fellows and your colleagues, the distinguished scientists, the researchers, your students, your PhD students and your postdoc fellows, and your teams."

The new UCT Fellows for 2017 are:

■ Professor Bruce Hewitson, Department of Environmental and Geographical Science

- Professor Chris Reason, Department of Oceanography
- Professor Chuma Himonga, Department of Private Law
- Professor Crick Lund, Department of Psychiatry and Mental Health (in absentia)
- Professor Graeme Meintjes, Institute of Infectious Disease and Molecular Medicine
- Professor Karen Barnes, Division of Clinical Pharmacology (in absentia)
- Professor Lucy Gilson, School of Public Health and Family Medicine
- Professor Malcolm Collins, Department of Human Biology
- Professor Michael Lambert, Department of Human Biology
- Professor Peter Dunsby, Department of Mathematics and Applied Mathematics
- Professor Peter Ryan, Percy FitzPatrick Institute of African Ornithology (in absentia).

The evening also saw the presentation of the annual Young Researcher Awards, which honour the significant contributions that UCT's young researchers have made to research in their particular fields.

Researchers recognised at the NRF Awards

UCT researchers are playing a critical role in creating knowledge in South Africa and building an inclusive scientific community. That was the message for six UCT academics who were celebrated for their contributions and research excellence at the 2017 National Research Foundation (NRF) Awards.

THE ANNUAL NRF AWARDS are seen as a benchmark for research excellence in South Africa and are a key driver in the NRF's aim to build a globally competitive science system in the country.

UCT RESEARCHERS RECEIVED THE FOLLOWING AWARDS:

Hamilton Naki Award: Professor Lungisile Ntsebeza, Centre for African Studies

Professor Lungisile Ntsebeza received the Hamilton Naki Award, which honours individuals achieving world-class research performance despite considerable challenges.

Science Team Award: Cardiovascular Genetics Laboratory, UCT and Groote Schuur Hospital

This award went to the all-women team from the Faculty of Health Sciences that discovered the gene responsible for a heart condition that can cause sudden death in people younger than 35 years.

A ratings

Professors Anusuya Chinsamy-Turan and Peter Ryan, both from the Department of Biological Sciences, were A-rated for the first time, acknowledging them as leading international scholars in their fields.

Professor George Janelidze, Department of Mathematics and Applied Mathematics, was recognised with an A rating for the third time and Professor Frank Brombacher, Department of Pathology, for the fourth time.



UCT researchers honoured at 'Oscars of science'

FOUR UCT RESEARCHERS WERE HONOURED at the annual NSTF-South32 Awards in June 2017. The awards, known in the South African research community as the 'Oscars of science', recognise and reward excellence in science, engineering and technology, and innovation in South Africa.

"We are particularly proud of our six finalists and four award winners," said Professor Mamokgethi Phakeng, deputy vice-chancellor for research and internationalisation. "That our researchers performed so well in these awards reflects positively on the entire research endeavour at UCT."

UCT'S WINNERS WERE:

TW KAMBULE-NSTF AWARD FOR EMERGING RESEARCHERS

Associate Professor John Ataguba from the Health Economics Unit in the School of Public Health and Family Medicine has contributed to our understanding of health inequalities, social determinants of health and health system equity in Africa.

Dr Robyn Pickering, an isotope geochemist in the Department of Geological Sciences, adapted uranium-lead dating techniques to provide ages for the South African caves in which early human fossils were found.

NSTF-GREENMATTER AWARD

Professor George Ekama is professor of water quality engineering in the Department of Civil Engineering. He has spent over 40 years researching ways to provide solutions to our country's water problems.

DATA FOR RESEARCH AWARD

Professor Martin Wittenberg of the School of Economics is head of DataFirst, Africa's leading social science data archive, which provides online access to survey and administrative microdata from a number of African countries.

Claude Leon Merit Awards

The Claude Leon Merit Awards are offered each year in recognition of meritorious scholarly work by early-career academics in natural sciences, medical sciences (excluding clinical research) or engineering. These are the recipients of the 2017 awards:



Associate Professor Adeniyi Isafiade ensures that the networks bringing us energy and water are efficient, cost-effective and environmentally friendly. But it was his attempts at integrating renewable energy into these networks that won him a Claude Leon Award.



Dr Katye Altieri's research interests are climate and biogeochemistry in the marine atmosphere. She used her Claude Leon Merit Award to set up a portable ambient aerosol sampling system for her research and to train students in air quality analysis.



2017 Claude Leon Merit award winner **Dr Joseph Raimondo** is focused on understanding why brains seize. His award recognises the research into understanding why certain seizures don't stop by themselves.



Particle physicist **Dr Sahal Yacoob's** Claude Leon Merit Award will support research on the Higgs boson, the elusive particle that gives matter mass, and the mysterious 'top quark', the giant among all observed elementary particles.



Little is known about the chemical make-up of False Bay's water. A new Claude Leon Merit Award-supported study by oceanographer **Assistant Professor Sarah Fawcett** on nitrogen pollution in the bay hopes to change that, providing a valuable baseline for oceanographers.

GRADUATION 2017

“You young people going out today, you are not the future. You are the present. You are today. Do not stand aside. We need you.”

Social justice activist Zackie Achmat was awarded an LLD (*honoris causa*) during the July graduation ceremony, his second honorary degree from UCT.



In keeping with tradition, graduates turn to thank their families and loved ones for their care and support, which is vital to ensuring the successful completion of their studies.



Registrar Emeritus Hugh Amoore, recipient of the President of Convocation Medal, which is awarded annually to UCT graduates who have brought credit to the university through their contributions to the wider community.



Mr South Africa 2017, Habib Noorbhai, stands in line with his fellow PhD graduates at one of the July ceremonies.



Renowned journalist and author Zubeida Jaffer

“We are beginning to create a truly South African university where we will study within an African context and draw from knowledge sources across the world ... We will take the best ideas and develop home-grown solutions to solve our tough social problems.” - renowned journalist and author Zubeida Jaffer



FACULTY H

FACULTY OF ENGINEERING & THE BUILT ENVIRONMENT

Undergraduates: 3 274 | Postgraduates: 1 588

216 Honours | 1 039 Master's | 288 PhD

7 SARCHI chairs |  61 NRF-rated scholars

Based on research by staff and students, **the first full-scale eutectic freeze crystallisation unit** will be transforming waste water into clean water and valuable salts at the Tweefontein colliery in Mpumalanga.

Professor George Ekama, an A-rated researcher in the Department of Civil Engineering, was recognised as an International Water Association Distinguished Fellow for his outstanding long-term contributions to the water sector.

Aditi Lachman, a civil engineering master's student, received a Queen's Young Leader Award for her work with WomEng (Women in Engineering), a social enterprise working to close the skills and gender gap in engineering.

FACULTY OF LAW

Undergraduates: 688 | Postgraduates: 709

384 Master's | 140 PhD

3 SARCHI chairs

19 NRF-rated scholars

151* Journal papers
*2016

The Faculty of Law was ranked in the 51-100 band by Quacquarelli Symonds in 2015, 2016 and 2017.

The faculty's Endowment Fund Scholarships contributed about R1.5 million in undergraduate and postgraduate scholarships, in addition to other standing faculty scholarships.

Law alumni include **Justice Albie Sachs**, **Justice Kate O'Regan**, **Judge Shehnaz Meer**, **Judge Dennis Davis**, as well as leaders in many of South Africa's top law firms, including Webber Wentzel, ENSafrica, Bowmans, Norton Rose Fulbright, Cliffe Dekker Hofmeyr and Werksmans.

Justice Dikgang Moseneke and **Dame Linda Dobbs** are both honorary professors.

FACULTY OF HUMANITIES

Undergraduates: 4 896 | Postgraduates: 1 925

512 Honours | 791 Master's | 379 PhD

4 SARCHI chairs

89 NRF-rated scholars

245* Journal papers
*2016

Simphiwe Noluthshungu, a lecturer in the Department of African Languages and Literatures, received the Poetry Award at the South African Literary Awards (SALA) for his book *lingcango Zentliziyo*.

Professor Herman Wasserman, director of the Centre for Film and Media Studies, was awarded the prestigious Georg Forster Research Award by the Alexander von Humboldt Foundation (Germany).

The first cohort of the joint UCT and London School of Economics and Political Science twinned master's degree in global media started in 2017.

HIGHLIGHTS



FACULTY OF SCIENCE

Undergraduates: 1 656 | Postgraduates: 1 191

215 Honours | 533 Master's | 417 PhD

12 SARCHI chairs

175 NRF-rated scholars

386* Journal papers

*2016

Quacquarelli Symonds World University Rankings by Subject placed geography in the **top 50 in the world**, while the Centre for World University Rankings Subject Rankings placed ornithology in the top five.

Professor Claire Spottiswoode was awarded the Bicentenary Medal of the Linnean Society of London, as well as being awarded the Scientific Medal of the Zoological Society of London, for distinguished work in Zoology.

Professor George Janelidze was awarded the Chair de la Vallee Poussin by the Lovain-la-Neuve University, Belgium – an invitation to the distinguished mathematician to give four lectures on a topic of his choice.



FACULTY OF HEALTH SCIENCES

Undergraduates: 2 319 | Postgraduates: 2 483

115 Honours | 1 413 Master's | 552 PhD

11 SARCHI chairs | 145 NRF-rated scholars | 1 391* Journal papers

Professor Bongani Mayosi, dean of the Faculty of Health Sciences, was elected to the US National Academy of Medicine.

Professors Valerie Mizrahi and **Carolyn Williamson**, both from the Institute of Infectious Disease and Molecular Medicine (IDM) were awarded platinum and gold medals respectively by the South African Medical Research Council (SAMRC).

*2016/2017



An artificial heart valve created by Strait Access Technologies – a UCT start-up company – won two European Association of Cardio-Thoracic Surgery awards for innovation in cardiac surgery.



FACULTY OF COMMERCE

Undergraduates: 5 037 | Postgraduates: 2 883

2 SARCHI chairs

43 NRF-rated scholars

101* Journal papers



*2016

455 Honours | 1 128 Master's | 293 PhD

27 INTERNATIONAL RESEARCH COLLABORATIONS | 12 RESEARCH GROUPINGS

Commerce received a total of R210.5 million in research grants, contracts and donations.

The faculty was home to **93 international students** registered from 58 universities across the world.

Michael Harber was the recipient of the *Accounting Perspectives in Southern Africa* Best Paper Award for “The current status of the mandatory audit firm rotation debate in South Africa and suggested areas for further research”.

The Council of the Economic Society of South Africa awarded the *2017 JJI Middleton Award* for the best first article published in the *South African Journal of Economics* to **Alfred Kechia Mukong**.

* These figures were unaudited at the time of going to print and may be subject to change.



Winning book is decolonising religious studies

PROFESSOR DAVID CHIDESTER'S UCT BOOK AWARD-WINNING *Empire of Religion: Imperialism and Comparative Religion* (University of Chicago Press, 2014) is part of his ongoing efforts to decolonise his discipline – the academic study of religion.

Chidester's research interests lie in the relationships between religion and globalisation, religion and popular culture, religion in society and the problems of social cohesion. He has written extensively on religion in South Africa and North America and on religion and education.

The UCT Book Award was conferred on him at the mid-year graduation ceremony on 14 July. This is his second UCT Book Award, the first being in 1994 for *Shots in the Streets: Violence and Religion in South Africa* (Boston: Beacon Press, 1991; Cape Town: Oxford University Press, 1992).

The latest work is described in the citation as a “new history of the study of religion that locates knowledge about religion and religions within the power relations of imperial ambitions, colonial situations and indigenous innovations”.

“It uncovers the material mediations in which knowledge about religion was produced during the rise of an academic study of religion between the 1870s and the 1920s in Europe and North America.”

Commenting on the work, Chidester said, “Twenty years in the making, *Empire of Religion* is the most recent instalment in my ongoing project of decolonising my discipline – the academic study of religion.”

Reviewers of *Empire of Religion*, which was also a finalist for the Society of Anthropology of Religion's Clifford Geertz Prize, have called the book “essential” and “game-changing”.

Creative Works win for Beethoven marathon

Associate Professor François du Toit won the 2017 Creative Works Award for the Five Beethoven Concerti, which he played on two consecutive nights with the Cape Town Philharmonic Orchestra. He described the six-month preparation (five to six hours daily) for the concerts as being like “practising for a marathon”.

THE PERFORMANCES WERE, HOWEVER, THE REALISATION of a lifelong dream for Du Toit. An associate professor and head of Practical Studies at UCT's South African College of Music (SACM), Du Toit is an internationally acclaimed concert pianist and recipient of numerous awards and prizes.

According to the citation for the Creative Works Award, the Five Beethoven Concerti represent the journey Beethoven undertook as a composer and a revolutionary in music, mirroring the times. The citation draws attention to the universal and apolitical aspects of music.

“Classical music at the College [SACM] has bridged the diversity of all students' backgrounds and it continues to enrich everyone's lives with its universal message.”

Du Toit's award-winning performances, 90 minutes on each night, took something special.

“In a way, it is all about building up stamina – like practising for a marathon – and training yourself to focus and be ready for any eventuality,” Du Toit said.

“I was very honoured that the Cape Town Philharmonic Orchestra entrusted me with this task.”

The Creative Works Award was officially conferred at the 14 July mid-year graduation ceremony.

“Classical music at the College [SACM] has bridged the diversity of all students' backgrounds and it continues to enrich everyone's lives with its universal message.”



Creative Works Award-winner Assoc Prof François du Toit performs the Five Beethoven Concerti with the Cape Town Philharmonic Orchestra.



“The award reflects the extraordinary teams and people I’m fortunate to work with and the strong collaborations that we’ve built,” said Prof Heather Zar.

Women in Science Laureate

Professor Heather Zar was announced as the 2018 L’Oreal-UNESCO Women in Science Laureate for Africa and the Arab States.

THIS IS IN RECOGNITION OF HER WIDE-RANGING CONTRIBUTIONS to child health, which have improved – and saved – children’s lives across the globe, as well as helping to shape international policy.

Zar is the chair of the Department of Paediatrics and Child Health as well as the director of the South African Medical Research Council Unit on Child and Adolescent Health at the Red Cross War Memorial Children’s Hospital.

The award acknowledges her outstanding contributions in the epidemiology, diagnosis, prevention and management of pulmonary illness; achieving reductions in childhood mortality globally; and for establishing a cutting-edge research programme in pneumonia, TB and asthma.

Zar’s work focuses on key illnesses that cause most childhood deaths and diseases in Africa and globally, including childhood

pneumonia, TB, HIV-associated diseases and asthma.

Possibly her most important work has been establishing the Drakenstein Child Health Study.

This body of work has led to improved management and prevention of childhood illnesses, and changes in policy and international practice guidelines, including those produced by the World Health Organization.

International rising talent

DR STEPHANIE FANUCCHI, A POSTDOCTORAL RESEARCHER AND CELL BIOLOGIST, was one of 15 young female scientists recognised at the L’Oreal-UNESCO For Women in Science Awards in Paris in March 2017.

Each year, the 15 most promising young researchers are honoured as “International Rising Talents”.

Fanucchi, who works at the Council for Scientific and Industrial Research (CSIR) and is now part of the Biomedical Translational Research Initiative (BTRI) – an initiative of the CSIR and UCT’s Institute of Infectious Disease and Molecular Medicine – was acknowledged for her innovative research into cancer and autoimmune diseases.

She was one of two postdoctoral fellowship recipients for the 2016 L’Oreal-

UNESCO For Women in Science Sub-Saharan Africa Regional Programme.

Fanucchi’s research is aimed at refining targeted therapies for cancer and autoimmune diseases.

“Current approaches to treat inflammation are not always successful. This highlights the need to gain a detailed understanding of these processes, so we can develop new therapies and refine old ones,” she said. “My work focuses on understanding how inflammation is controlled at the level of gene regulation.”

“Having the platform to discuss the importance of having more females in science has been a highlight for me. In addition, we get to celebrate phenomenal female scientific achievements which can inspire young girls who want to enter science.”



Professor Genevieve Langdon, from the Department of Mechanical Engineering, received a Women in Science Award (WISA) from the Department of Science and Technology. The theme for the 2017 WISA was “Women’s economic empowerment in the changing world of work”.

DISCUSSIONS

Keeping Africa's data safe

Dr Dale Peters, director of UCT eResearch, takes a look at big data and how working collaboratively to provide shared data infrastructure can power the world.

THERE'S A DATA REVOLUTION UNDER WAY IN AFRICA. It's being driven by major international research collaborations like the Square Kilometre Array (SKA) radio telescope project that are producing unprecedented volumes of data.

All of that data needs to be carefully managed throughout every stage of the research project. That's why data stewardship – a job that didn't exist in academia 10 years ago – is now key to the integrity of any academic research enterprise.

Projects like SKA are supported by initiatives such as South Africa's National Integrated Cyber Infrastructure System, which boost capacity for high levels of research data management.

The continent's universities are also scrambling to provide data services to researchers, to ensure that they comply with international funding agencies' complex data management requirements.

Africa must develop its capacity for data stewardship. This is a critical resource to refine the data according to the "FAIR" (findable, accessible, interoperable, reusable) data principles outlined by global bodies.

The Africa Data Revolution Report 2016, backed by the United Nations Development Programme, argues that in the African context open data means not only sharing and reuse: it also requires inclusion. This means that the benefits of gathering and sharing data should accrue to all, from institutions to individual researchers and entire communities.

South Africa's research community is particularly sensitive to the benefits of sharing data openly to promote social, economic and political inclusion and the integration of marginalised communities.

Those who support open data understand that it enables a strategic response to Africa's societal challenges. The continent's public health researchers and epidemiologists are leading the way here.

But of course, researchers have their

reservations too. Few universities have developed policies on research data management. These are necessary to guide the collection of good, standardised, shareable data.

Another concern is "helicopter science". The risk in international research collaborations is that non-African partners tend to drive the research agenda. They gather uniquely African data and then export it for analysis and publishing elsewhere. The African partners lose out on research incentives and patenting opportunities.

These concerns must be taken seriously as Africa continues its data drive. A focus on collaboration among African universities and research institutions is crucial in developing national policies that both meet the FAIR principles of open data and ensure equity and fairness in research contracts.

One example of such collaboration is the Data Intensive Research Initiatives of South

Africa's (DIRISA) plans to develop a shared data service from core funding awarded to a consortium of universities in the Western Cape.

This consortium, established in late 2016, is known as Ilifu ("cloud" in isiXhosa). It will give more access to research infrastructure, software and data to all the country's researchers, including those from under-resourced communities.

The opportunity to work collaboratively in providing shared data infrastructure heralds a mind shift for African research. We are beginning to see open data not as a commodity but as a source of renewable energy. It generates new value every time it's reused – and, ultimately, it can power the world.

This is an abridged version of the article that appeared in *The Conversation* on 21 November 2017.





Postgrads urgently need funding

There is a crisis brewing in postgraduate education in South Africa. The underlying question is how much financial support the government will allocate to this important issue.

STATISTICIAN-GENERAL PALI LEHOHLA said that tertiary education is the key to employment for South Africa's young people. However, although universities impart knowledge and skills to undergraduate students, it is postgraduates who have the potential to contribute significantly to the growth of our economy and to solving global problems. So says Professor Mamokgethi Phakeng, deputy vice-chancellor for research and internationalisation.

Despite this potential for shaping the future, postgraduate education remains under-resourced in South Africa – accessible only to students who have the financial resources to support graduate studies.

Funding from the National Student Financial Aid Scheme (NSFAS) is available only to students earning their initial degree. So students who relied on NSFAS to earn their first degree must compete for a limited number of grants and scholarships to continue their education.

Many of these scholarships do not sufficiently cover university fees, materials, accommodation and living expenses.

This is short-sighted, considering, first, the need to grow local academic capacity to transform the university sector and ensure growth, especially in terms of women and black professors; and second, the need to bring a fresh outlook to the country's development hurdles by training up postgraduates who understand the kinds of problems we need to overcome as a nation.

Postgraduate students point out that the higher education system puts critical obstacles in their way. For instance, students who pursue a four-year bachelor's degree, such as business science or engineering, qualify for NSFAS assistance, yet students in an honours programme do not.

The state's main funding body for postgraduates, the National Research Foundation (NRF), provided only R815 million in financial support to honours, master's and doctoral students in 2015–2016, according to its annual report for that period.

In 2015, universities had 128 747 full-degree postgraduate students, according

to the Centre for Higher Education Trust. So the NRF contribution averages R6 330 per student, for a programme of study that may cost 10 times that amount. (In the same period, NSFAS disbursed R9.3 billion to 418 949 university, technical and vocational students – an average of R22 198 per student.)

In addition, postgraduates are often not eligible for services that are provided free to undergraduates, such as healthcare.

Support from the NRF is often paid late in the academic year, putting the student recipients in financial jeopardy. UCT is considering how to cover the funding gap in situations where the future payment of a bursary or scholarship is confirmed.

The NRF is not the only source of funding for postgraduate students. Research – in health, science and technology in particular – receives funding from a number of outside sources, including the private sector. In such cases, the principal investigator can budget for postgraduate students to join the project.

In April 2017 the Black Postgraduate Student Caucus at UCT asked to meet me on this issue and other grievances. I established a task team to examine their concerns and to make recommendations, including what UCT could do to improve support to postgraduate students. Individual universities have limited resources for this purpose. Even UCT, one of the better-resourced universities, is not able to meet the vast need.

For the good of the country and its influence in Africa and the world, the government needs to give postgraduate funding its immediate attention.

This challenge we face is a magnificent opportunity to unlock and support young postgraduate talent, but if left unattended it spells a sad loss of human potential and the deep contribution these scholars could have made in South Africa.

This is an abridged version of the article that appeared in the *Mail & Guardian* on 18 September 2017.

What's in a name?

UCT's registrar, Royston Pillay, reflects on the processes and intention behind the renaming of the institution's buildings.

RENAMING DECISIONS ARE NOT NEUTRAL. They represent markers of how an institution is grappling with who it is, where it has come from and where it is headed. They point to an institution that is in deep, ongoing and necessary discussions with itself. It is a sign of doing what is necessary because the prevailing times impose such responsibilities on the university and all who work and study here.

In having these institutional discussions, UCT is in fact seeking to underscore ideas that are simultaneously universal and contextually relevant, while also seeking to harness the wisdom and example of those who have gone before, and whose life journey has pointed to a capacity to envision a future many years hence, to a future that is self-sustaining because it is born of values that take us forward to a better space than we were before.

At UCT the naming of buildings is informed by a range of considerations. Recognising that there is immense symbolic power in names, every effort is made to ensure that the names of buildings contribute to the university's transformation project, where names that are decided must signal a break from a past pattern, give substance to UCT's commitment to social justice and be a celebration of being located in Africa. Naming must always be approached with care, recognising in general that names will be long-standing, if not permanent. If short-lived, that itself will be a commentary on the wisdom of the naming decisions made. It is these considerations that continued to inform naming decisions in 2017.

In 2016, on the recommendation of the Naming of Buildings Committee (NoBC), the UCT Council approved the renaming of Jameson Memorial Hall. The NoBC subsequently proposed Sarah Bartmann Memorial Hall as an option, but pending the finalisation of the new name, the hall was renamed Memorial Hall as an interim measure by Council.

Two other naming decisions in 2017 have a strong resonance with District Six.

The first was the renaming of the Knowledge Commons in the Chancellor Oppenheimer Library as the Vincent Kolbe Knowledge Commons. This recognised the contribution of District Six-born community librarian Vincent Kolbe and the impact of his work in the public libraries of the Cape Flats.

The second was the renaming of Palm Court, a student residence in Mowbray, to Harold Cressy Hall in recognition of the pioneering efforts and profound contribution to education that Harold Cressy made.

The university as a public space

Associate Professor Jay Pather, director of the Institute for Creative Arts (ICA) and chair of the UCT Works of Art Committee, considers the contemporary university as a public space that calls for innovative strategies when it comes to the curation of its art.

THE UNIVERSITY IS NOT A CLOSED AND CONTROLLED SPACE in the same way a gallery is. In a white cube gallery or museum space, a collection of works may follow a particular theme with curatorial notes readily available simply because it is closed and discernible as a collection inside a finite space. A gallery assistant on call, labelling, the singular-purpose space – all of these facets make it possible for just about any work to be viewed since the creation of a context is possible in this controlled environment. Indeed, in contemporary exhibitions, coherence of the collection is key, and the curation may make or break an exhibition.

The university comprises sets of rambling spaces, much like a city. Moreover, there are indoor and outdoor spaces. Coherence of context is hard to maintain as it is, and made even harder because, unlike in a gallery where an audience chooses to go (or not) and provides a certain predictability, the composition of an audience at a university is much more diverse and unpredictable.

Because of this unpredictability, intentions are hard to grasp immediately. An artist may have the best possible intention at a particular time, but when this time passes, the residue of the action may clash with what exists in a contemporary context.

Of course, when the acquisition of works is based on artistic merit and the reputation of the artist, they become classics. Even when naked women are objectified by men throughout history in classical paintings, the classical framing asks various publics to suspend gender critique and to view them with a specific lens, framed and curated as such. Importantly, these works would most often be inside art galleries and museums and very rarely displayed in public spaces, certainly not without adequate framing. By a similar rationale, the removal of works is not an indictment on the artist; it is a call for curation, context and framing.

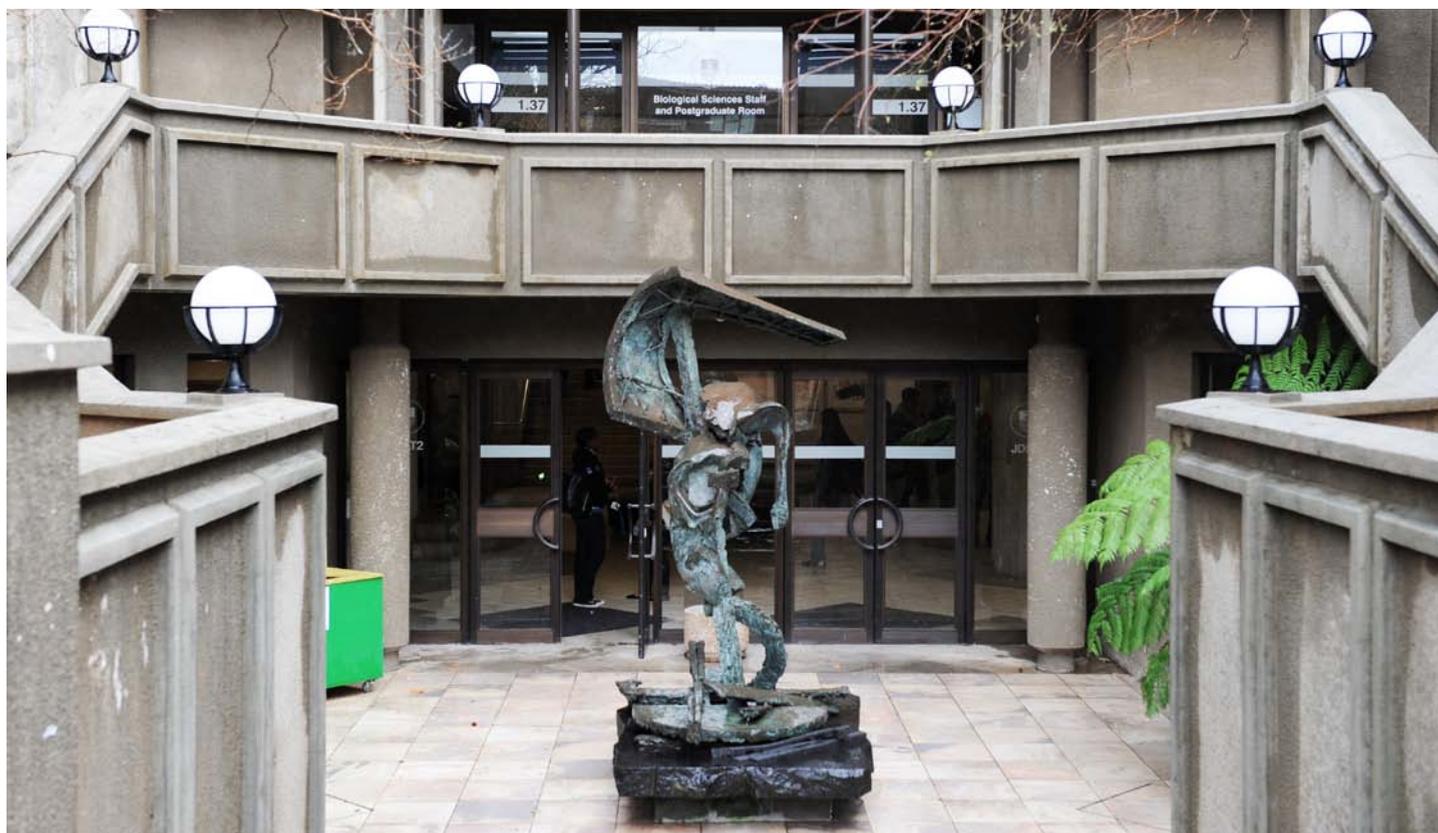
At an art gallery, you may look at a work once, on individual volition, and decide whether you like it or not. You have the freedom to stay with it or leave. In a corridor that leads to your lecture hall or the library, which you enter and exit every single day of your educational life, you have no choice but to repeatedly encounter this work. Should you not be consulted, or at least have your views taken into account, about the placing of such a work?

Being sucked out of a contemporary moment by a work that catapults you into unhealed wounds induces a schizophrenia and distension. Some students are able to cope with this, given the weight of symbols

that affirm their existence elsewhere. But many students simply can't cope – they have neither the resources to do so, nor the access to symbols that are overwhelmingly affirmative. We have to listen to these voices because they are, if not defining the new contemporary, at the very least a part of it. We owe it not just to the students but to the development of richer interactions with art that articulates these moments in our challenging history.

The contemporary university as a public space calls for innovative strategies that are different from both the controlled art gallery as well as the *modus operandi* of the past. In the university of the past, clear rationale for display did not matter or seem to matter. Works were displayed fairly randomly and this could survive since there was an assumption of a homogeneous university community, a singular public as opposed to plural publics. This assumption was not exactly wrong; it was arguably a true reflection of the singular demographic of staff and students. However, as the university's population changes, the assumptions of this homogeneity can no longer hold.

This is an excerpt from an article that ran in the *Daily Maverick* on 11 August 2017.



The Dog Watch (1994) by South African sculptor David Brown.



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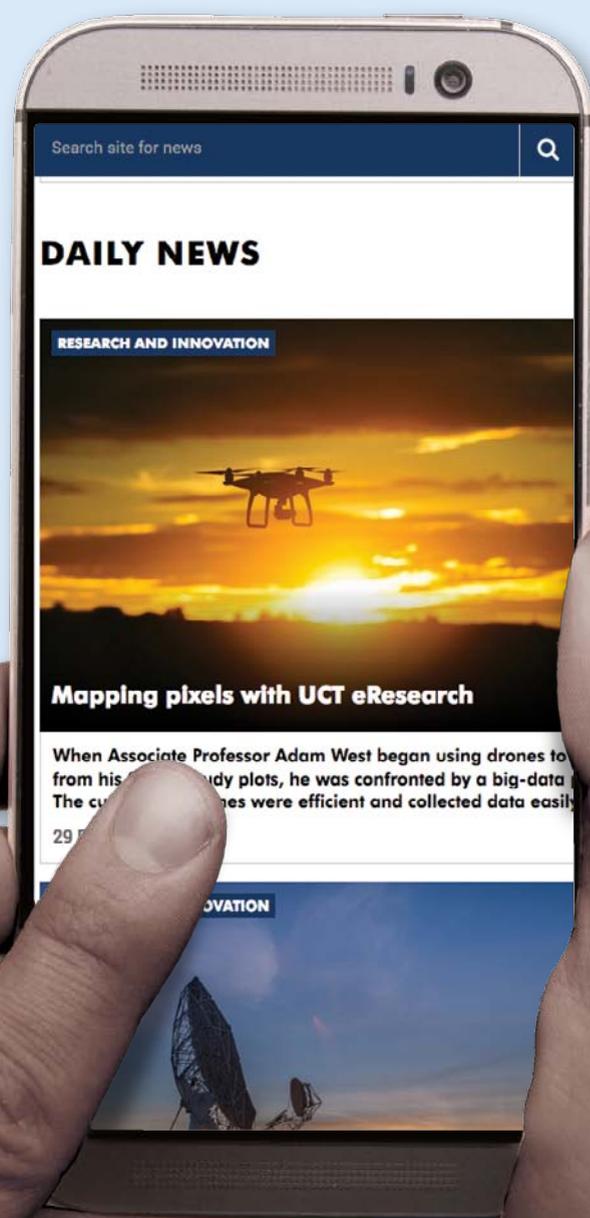
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