

UNIVERSITY OF CAPE TOWN

INSTITUTIONAL REVIEW 2008-2018

CONTENTS

Introduction: Taking Stock of a Decade	4
Chapter 1: Research	1 6
Chapter 2: UCT's Impact	48
Chapter 3: UCT in the World	74
Chapter 4: Teaching and Learning	98
Chapter 5: Infrastructure to Meet UCT's Growing Needs	154
Chapter 6: Student Life, Leadership and Activism	178
Chapter 7: Transformation	202
Chapter 8: Financial Sustainability	258
Appendix	278
Acknowledgements	285





Introduction TAKING STOCK OF A DECADE - JULY 2008 TO JUNE 2018

This report looks back on the progress and challenges that the University of Cape Town experienced during the past decade: 2008–2018.

The university has experienced significant growth during this period, in terms of the number of both undergraduate and postgraduate students and in terms of physical infrastructure. It also experienced complexities that challenged the institution deeply and, in some cases, will continue to challenge it in the future. The challenges include, but are not limited to, financial pressures, the under-preparedness of some students, the limitations of space on campus, crime, gender-based violence and the issue of mental health.

The report coincides with the term of office of Dr Max Price, who served as Vice-Chancellor from July 2008 until June 2018. During this time UCT moved from being a 'research-led' university to being 'researchintensive' – a university in which a large part of income is generated through research grants and contracts, where teaching is research-led, and in which a higher proportion of students are at a postgraduate level. Much progress has been made in this regard and UCT is regarded as a globally competitive research university.

Great strides have also been made in strengthening and expanding socially responsive scholarship at UCT, both through policy revision and by increasing UCT's collaborations with local communities to jointly find homegrown solutions to local problems.

The latter part of the period under review saw an unprecedented rise in student activism and protest on campus which resulted in a great deal of introspection and debate – both at UCT and nationwide, as student protests gained momentum under the banner of #FeesMustFall, and other social justice movements.

In particular, it shone a light on the need to accelerate transformation through decolonising the curriculum, transforming the professoriate, addressing issues of student mental health and gender-based violence



and seeking government support for affordable higher education. However, there has been specific transformation progress with regards to: improving access for disadvantaged students – addressing both race and class inequality; investing in academic and social support programmes to improve the success rates of students from poor schools; stimulating debates on the inclusivity of the environments and making physical changes – from the naming of buildings to the increased awareness of symbols and artworks and curation of collections to the modes of engagement with those who experience the institution in radically different ways.

The institution has made limited progress with the recruitment and retention of black South African academic staff at professorial levels, in spite of considerable investment in programmes to "grow our own timber", although the increasing numbers of mid-level black academic staff give hope for a more diverse professoriate in the future. This process, while fragile and uncertain, is making inroads – for example more than 67% of permanent academic staff recruited from May 2017 to April 2018 were black (African, coloured, Indian, Asian).

UCT has consciously sought to redress inequalities within the institution, with the insourcing of 1 300 previously outsourced workers being a major policy change that dramatically improved the lives of some 25% of the university's staff community. The university also runs many projects which seek to advance social justice outside the institution, the Schools Improvement Initiative and the Poverty and Inequality Initiative being two examples. Finally, there have been numerous projects and initiatives aimed at embedding UCT's African identity and connectedness in the global higher education landscape.

UCT continues to record achievements in teaching and research that exceed its goals: consistently and significantly increasing the number of research publications, increasing graduation rates (see table



below), increasing the number of individual donors giving to the university, and maintaining UCT's position as the top university on the continent in the various world ranking systems. UCT competes successfully for international research funds, partnerships and international students, and is sought after as a partner of choice by institutions globally.

GROWTH IN G	RADU	ATES: 2008	8-2017	
LEVEL	2008	2017	% Growth	
Undergraduate	3 040	3 700	21.7%	6
Postgraduate	2 461	3 523	43.2%	
TOTAL GRADUATES	5 501	7 223	31.3%	

These achievements will be covered in more detail elsewhere in this report, but looking back over the decade, some of the highlights include the following:

Internationalisation

- Securing UCT's position as a globally competitive research university, following new internationalisation strategies that cemented links with a host of new institutions and forged vital new research collaborations. Some of these have been through bilateral partnerships, others through joining or founding multi-university networks.
- Developing the university's networks, partnerships and its research focus on the African continent and positioning UCT as the knowledge hub of the continent has helped differentiate UCT among the top universities globally.

Increasing access and growth

- Intensifying and expanding efforts to address educational disadvantage in respect of student admissions and success. This saw the introduction of a new admissions policy and an expanded financial aid system to enable admission regardless of financial status, and free laptops for those on financial aid. Since 2010 UCT has not turned away any academically eligible students for financial reasons. Increased resources have been devoted to educational and social support interventions to increase success rates, such as the First-Year Experience programme, tutor training, automatic lecture recording, and strengthened Academic Development Programmes.
- Growing student numbers by 23% from 24 000 to 29 000. Most of this growth has been black students and much has been postgraduate.
- In parallel with the student growth, UCT has expanded its infrastructure. A number of major building projects have been



completed in the past 10 years – the Obz Square residence, the Harold Cressey residence, the New Engineering Building, the new Snape Learning Centre, the New Lecture Theatre, the New Economics Building, and Masingeni (housing student administration and the International Academic Programmes Office). Work has begun on a conference centre at the Graduate School of Business, a major refurbishment is under way for the Neurosciences Institute and UCT has contributed to a new forensic pathology centre. Over R100 million was spent upgrading classrooms and other buildings. Many of these initiatives were supported with funds raised from donors.

Research-intensive

 Moving UCT from being "research-led" to "research-intensive", by developing research management systems, mentoring and supporting emerging researchers, appointing or retaining senior retired scholars



as mentors, revising policy on the retirement of A-rated researchers, introducing policies and projects to promote open-access publication and discoverability, financial and organisational investment in postdoctoral programmes, growing numbers and quality of postgraduates, and creating new interdisciplinary programmes and institutes. The impact of all this was an 85% increase in the number of unique publications over the decade, a 136% increase in Chairs and also a third of all A-rated scientists in South Africa. UCT has also doubled the number of postdoctoral fellows to 355 in 2017. Eighteen start-up companies were spun out during the decade – with 11 of those in the past four years.

Taking teaching and learning seriously

 Amending staff promotion criteria with a view to valorising teaching for all academic promotions, as well as creating a teaching track. Along with expanding the recognition of outstanding teachers, these factors elevated the status of teaching and helped raise commitment levels and quality, and helped retain lecturers whose forte is teaching rather than research.

Embedding social responsiveness

Strengthening UCT's commitment to social responsiveness by revising policy to refocus on engaged scholarship; the introduction of awards to match those in teaching and research; introducing the Knowledge Partners programme to inspire postgraduate research for community-based projects; inaugurating UCT-Plus, which formally recognises a student's social responsiveness activities on the degree



transcript; and introducing the Global Citizenship and Leadership course available to all students and incorporated into some degree programmes.

- Four flagship Vice-Chancellor's Strategic Initiatives were established as university-wide, transdisciplinary research and action programmes to address key national challenges. These focus on climate change and development, poverty and inequality, safety and violence, and improvement in basic education.
- Strengthening ties with local communities through the establishment of a small campus in Philippi; working with local schools to improve school education in Khayelitsha and Mitchells Plain; ongoing student support for schools and clinics through the Students' Health and Welfare Centres Organisation (SHAWCO), Ubunye and others; the



CityLab project in Cape Town and surrounds; dozens of communitybased health projects such as the Perinatal Mental Health Project in Hanover Park, the Desmond Tutu HIV Centre in Masiphumelele, TB vaccine research in Worcester, and many more.

Innovation in higher education – leading the way

UCT responded in this area by rising to the challenge of online learning technology with online qualifications, designing and delivering the first massive open online courses (MOOCs) at a South African university, rated among the best in the world; and implementing lecture capture facilities in most large classrooms, which allows for lectures to be recorded and put online, giving students 24/7 access to teaching for review. A few courses have also implemented a flipped

classroom model with lectures delivered online, backed up by faceto-face tutorials. There are now many online short courses which generate significant third-stream income and the university has piloted online degree programmes.

• The establishment of the Graduate School of Development Policy and Practice has raised UCT's profile with senior public managers in South Africa and across the continent by providing training programmes, thematic policy workshops and fellowships, and a new master's degree. With the blessing and support of the Nelson Mandela



Foundation, this graduate school became the Nelson Mandela School of Governance in July 2018, and will in the future be housed in a custom-designed building which will also serve as a Centre of Memory honouring Nelson Mandela, located on Table Mountain in a position in relation to UCT upper campus that represents a counterpoint to the Rhodes Memorial.

 The creation of the Hasso Plattner Institute for Design Thinking (or d-school) – a sister institute to two other d-schools at Stanford and Potsdam universities. This school too will soon have its own building funded by the Hasso Plattner Foundation.

Underpinning all this has been judicious financial management and, in the past few years, austerity measures to navigate a tough economic environment. But through this UCT has been able to maintain its capital programme, acquire research equipment and information technology (IT) infrastructure, and to support a very generous financial aid programme and strategic projects.

This report is a reflection of the impact and quality of the university under the leadership of Dr Price. It speaks to the dedication and profound commitment of UCT staff in particular.

The university remains indebted to all those that support its endeavours – students and staff (including the Senior Leadership Group whose members are listed in the appendix on page 278), research and community partners, South African-based and international alumni, and particularly to its donors and benefactors. Donations enable the university to fulfil its mission through scholarships, funding capital projects and special projects, supporting research and community outreach work. This philanthropy has benefitted not just the university, but the country, continent and the global community.



CHAPTER ONE A RESEARCH-INTENSIVE UNIVERSITY

Raising the visibility of African scholarship and contributing to global knowledge

For several decades UCT has enjoyed an international reputation for high-quality research and as a research hub comprising exceptional academics and researchers who are at the forefront of their respective disciplines. Looking back at the 10 years under review, all indicators show that UCT's research enterprise has grown to establish the institution as a peer among the top research universities globally – despite the relative lack of funding for research from government.

Under the leadership of Dr Price, the successive deputy vicechancellors (DVCs) responsible for research, and the Research Office, a research strategy comprising six elements was implemented:

- the recruitment and retention of top researchers
- the nurturing of new talent, especially emerging black and women researchers
- a focus on addressing, through research, a select number of pressing issues facing the country and the continent
- the promotion of interdisciplinarity, which draws together areas of research strengths
- the raising of funds for infrastructure, equipment, initiatives and institutes, and postgraduate scholarships, including investment in commercialising UCT's intellectual property
- the creation of an enabling environment and research ecosystem that supports researchers and improves their productivity and ability to raise and manage grants.

The Research Strategy (2015–2025) is firmly in place, committing UCT to continue developing capacity to support researchers at every level.

Through the work of the Research Office – including the newly established Office of Research Integrity, the Postgraduate Funding Office, the Postgraduate Studies and Researcher Development unit and Research Contracts and Innovation (RC&I) – UCT has continued to attract and retain a community of outstanding researchers who have not just put UCT on the global research map through their groundbreaking work, but also have attracted collaborators throughout the world, as well as local and international funding.

This ability to attract serious funding from research contracts and grants is a distinguishing characteristic of a research-intensive university. It is also an indicator that UCT academics are conducting research that is making a real contribution to the world.



The university's strategy commits UCT to becoming "researchintensive": a term that describes an institution where a large portion of income is generated through research grants and contracts, where teaching is research-led, and where there is a higher proportion of postgraduate students – making up 40% or more of the student body.

UCT is well on its way to realising these objectives.

Total research income from external sources has trebled over the past 10 years, from R613 million in 2008 to R1.569 billion in 2017. Donations relating to research generally represent about 8% of total research income.



2008	2012	2017
20.9%	24.6%	29.5%
25.4%	26.3%	32.7%
42.5%	48.5%	51.9%
22.2%	23.3%	28.3%
46.3%	53.8%	51.0%
34.9%	36.5%	42.0%
28.7%	32.4%	37.8%
	20.9% 25.4% 42.5% 22.2% 46.3% 34.9%	20.9%24.6%25.4%26.3%42.5%48.5%22.2%23.3%46.3%53.8%34.9%36.5%

In 2017, 10 852 students were registered for postgraduate degrees, which represented 37,8% of the student body. The current research strategy aims for a student body target of 40% of postgraduates by 2025 – and based on the year-on-year increases in postgraduates, this appears achievable.

One clear indicator of UCT's success is that total research publications have increased by almost 85% over the past 10 years. These publications are made up of peer-reviewed journals, conference proceedings, books and chapters that were submitted to the Department of Higher Education and Training.

PUBLICATION COUNT 2008 TO 2017				
YEAR	TOTAL UNIQUE PUBLICATIONS			
2008	1 858			
2009	2 100			
2010	2 274			
2011	2 516			
2012	2 640			
2013	2 873			
2014	3 110			
2015	3 165			
2016	3 409			
2017	3 240			

PUBLICATION COUNT WITH INTERNATIONAL CO-AUTHORS

YEAR	NUMBER OF PUBLICATIONS WITH INTERNATIONAL CO-AUTHORS (EXCLUDING PHYSICS & ASTRONOMY)*
2008	801
2009	928
2010	1 072
2011	1 113
2012	1 256
2013	1 328
2014	1 514
2015	1 638
2016	1 824
2017	1 897

*Co-authored publications in physics and astronomy were excluded as these are mostly highenergy physics papers which comprise a growing global consortium of authors (in latter years reaching 5 000 authors) and so are not representative of a close collaboration with UCT in particular.

PROGRESS AGAINST THE SIX ELEMENTS **OF THE RESEARCH STRATEGY**

1 Nurturing UCT's brains trust

UCT has attracted and nurtured the highest proportion of researchers in South Africa who are international leaders in their fields. In 2018 and for most of the past decade, the university boasted onethird of the National Research Foundation (NRF) A-rated researchers in South Africa.

The NRF rating system is a key driver in the foundation's aim to build a globally competitive science system in South Africa. It is a valuable peer-review tool for benchmarking the quality of local researchers against the best in the world. These include the A-rated

NRF-rated researchers at UCT in 2017 (15% of the national total)

A-rated researchers at UCT in 2017 (33% of the national total)

P-rated researchers at UCT in 2017 (50% of the national total)



category, which is awarded to leading international researchers; and the P-rating, given to young researchers, usually younger than 35 years, who have the potential to become leaders in their respective fields. The enormous strength of UCT's researchers is reflected in the high numbers that have achieved successful ratings in the past 10 years, with 15% of the national total calling UCT their home. A policy change introduced during this period allows A-rated researchers to continue post-retirement as long as they retain their ratings.

South African Research Chairs Initiative (SARChI)

The SARChI programme is a capacity-building initiative that was introduced in 2006 by the Department of Science and Technology



Note: The number of NRF-rated researchers has increased by 94% between 2008 and 2017.

(DST) and the NRF, with the intention of growing research capacity through excellence and postgraduate training in areas of national and continental need. In 2008, the university was home to over a third of the SARChI Chairs, with 26 located at UCT. By 2018 this had grown to 39 SARChI Chairs – an increase of 50% over the decade.

NUMBER OF SARCHI
CHAIRS AT UCT2008:2018:263950% increase
over 10 yearsOne-third of the country's SARCHI

Chairs are at UCT.



2 Growing the next generation of research leaders

The career pipeline starts with postgraduates

UCT has a robust pipeline of academics who will move into senior positions as the current cohort of professors reaches retirement age. But UCT's commitment to transformation raises a significant challenge with respect to the demographic profile of academics. To encourage the development of future black and women researchers, during the past decade the university has developed a range of interventions that begin at the postgraduate level and extend to the recruitment, accelerated development, promotion and retention of academics.



The critical need to offer more centralised support for the university's postgraduates was recognised in 2013 with the establishment of the Office for Postgraduate Studies – now the Postgraduate and Researcher Development (PRD) unit – headed by a new post: Director of Postgraduate Studies. Working closely with the Postgraduate Centre and Funding Office, the PRD offers postgraduates a number of support services, such as advice on funding, and professional and academic support, which includes extracurricular opportunities and activities such as writing retreats and workshops.

South Africa's apartheid past created a research contingent that was mostly white and male, and postgraduate funding is one important way to correct this unjust imbalance. Since postgraduate students are not generally funded by the National Student Financial Aid Scheme (NSFAS), the Vice-Chancellor's Strategic Fund has provided increasing



support to them. They also have access to research grants and early-career fellowships. This is especially important in light of the growing number of postgraduate students from disadvantaged communities.

Nurturing a new generation of academics

UCT has been a pioneer in academic staff development and has developed a variety of programmes over the decade that develop research capacity, with an increasingly specific



focus on addressing the need for greater diversity within academic ranks, particularly black and women academics. These interventions include:

New Academic Practitioners' Programme

Since its inception in 2004, the New Academic Practitioners' Programme (NAPP) has inducted two cohorts of approximately 20 academics per year to take part in this holistic professional development programme, aimed at equipping new academics with the basic skills they need as educators, researchers and members of the UCT community. Some 400 academics have graduated from NAPP over the past decade.

Emerging Researchers' Programme

The Emerging Researchers' Programme (ERP) continues to identify and support researchers who are either starting out in academia or would like to hone their skills. The initiative helps academics to plan and advance their research careers and also provides participants with start-up research grants. This programme began with 45 academics in 2003. By the end of 2017, ERP had provided various levels of support to 800 academics.

Recruitment, Development and Retention Programme

Launched in late 2015, the Recruitment, Development and Retention (RDR) Programme was designed to help transform UCT by addressing elements of its institutional processes and environment on the one hand, and advancing individuals' careers on the other. The two main



RDR initiatives are the New Generation of Academics Programme (nGAP), which is funded by the Department of Higher Education and Training (DHET), and the Next Generation Professoriate (NGP), funded by the Vice-Chancellor's Strategic Fund.

New Generation of Academics Programme

The New Generation of Academics Programme (nGAP) was created by the DHET to recruit young scholars who are black African South African and/or women into academia. Successful applicants are appointed into permanent academic positions at South African universities, earning salaries from the start. nGAP posts are largely funded by the DHET and partially funded by the host university for the first six years. In year seven the cost shifts entirely to the host university. Successful applicants are usually registered for a postgraduate degree, in some cases a master's, in others a doctorate. By early 2018 UCT had appointed 12 nGAP staff members across all faculties: eight of them women, nine black African South Africans, two coloured and one Indian South African. In addition, in March 2018 UCT was awarded a further five nGAP posts in Phase 4 and these are currently being advertised and filled.

Next Generation Professoriate

A UCT project, the Next Generation Professoriate (NGP) was launched in 2015 and aims to advance the development of mid-career academics, particularly black and/or women staff. At this point there are 45 academics taking part. The NGP has already yielded four new professors and six associate professors. The goal is that by 2020 most members should have been promoted to associate or full professor.

$\ensuremath{\overset{\scriptstyle{}}{\overset{\scriptstyle{}}}}$ Research that responds to African and global challenges

UCT's strategic research priorities closely match the United Nations' ambitious and wide-ranging Sustainable Development Goals (SDGs), which speak to critical problems facing South Africa and the rest of the continent. UCT's two most recent research reports (*Research & Innovation 2015–16; Research & Innovation 2016–17*) provide a useful overview and some highlights of this work, demonstrating the extent to which UCT was involved in lobbying and drafting the SDGs at the global level, and how it continues to lead in research from Africa directed at tackling the SDGs.



Commitment to interdisciplinarity UCT has made a commitment to interdisciplinary study that brings together experts from different fields to examine a problem and develop possible solutions from as many angles as possible.

Encouraging interdisciplinarity is, however, an ongoing challenge since it works against long-established governance structures within a university. In 2016, UCT drafted a document titled "Approach to Manage and Promote Inter- and Transdisciplinary (ID/TD) Teaching and Research Supervision at the University of Cape Town". This was later adopted by the Senate.

The Vice-Chancellor's Strategic Initiatives have a similar approach, encouraging different disciplines to consider possible joint approaches to climate change, improving the quality of public school education, addressing poverty and inequality, and issues of safety and violence, including community policing. These initiatives are discussed in the UCT's Impact chapter that follows.

Interdisciplinary research has been promoted through new interdisciplinary institutes, UCT signature themes, and Department of Science and Technology (DST)/National Research Foundation (NRF) Centres of Excellence.

Interdisciplinary institutes

A new initiative to encourage interdisciplinarity led to the launch in 2016 of seven university research institutes, strategically selected or created to drive specific research that targets institutional, regional and national priorities.

Three of the research initiatives were already well established and were renewed or formalised as institutes. Two of these - the African Climate and Development Initiative and the Poverty and Inequality Initiative – started out as Vice-Chancellor's Strategic Initiatives and are covered in the *Impact* chapter. The Institute of Infectious Disease and Molecular Medicine (IDM), established in 2004, has become the largest research entity at UCT and a national leader in research and human capital development in the field of health sciences.

The remaining four research institutes are newly established:

Future Water Institute The complexity and uncertainties of water management in South Africa provide a major national challenge that cannot be addressed through the lens of a single discipline. Through inter- and transdisciplinary scholarship, the Future Water Institute's aim is to address water scarcity in South Africa through water-sensitive design.



Institute for Communities and Wildlife in Africa With the understanding that conservation needs to engage with the historical and socio-economic contexts, as well as the scientific, philosophical, legal and political frameworks, the Institute for Communities and Wildlife in Africa challenges the divide between the social and hard sciences as it strives to understand and guide the realignment between humans and wildlife eco-systems.

Institute for Democracy, Citizenship and Public Policy in Africa

The Institute for Democracy, Citizenship and Public Policy in Africa conducts comparative empirical studies on contemporary African democracy on the understanding that democracy is sustained through effective and predictable political institutions, and an active and critical citizenry, underpinned by public policies that enable inclusive growth and rising welfare.

Neurosciences Institute

The Neurosciences Institute brings together expertise in the basic sciences, clinical disciplines, public health and an array of other disciplines to advance the understanding of the brain and the many brain disorders prevalent in Africa, including traumatic brain injury and the neurological and neuropsychiatric consequences of HIV and TB. It has been supported through donations of approximately R200 million which have enabled the construction of a building where the various disciplines can be housed, the installation of advanced scanners, and a budget to support researchers.

Signature Research Themes

One of the most important vehicles for interdisciplinary research at UCT has been the university's signature themes which were established in 2004 and they have grown in scope and impact ever since. They are aligned with institutional, regional and national priorities and facilitate the collaboration between experts from various disciplines. They have also served as important platforms for training students in these interdisciplinary fields. The themes include:

African Centre for Cities

Acknowledging the importance of cities, and particularly cities in the developing world, the African Centre for Cities (ACC) was established in 2007 as an applied urban research centre. The ACC's twin objectives include partnering closely with African policy-making centres in the public sector to offer an alternative perspective on addressing critical urban issues, and providing an intellectual home for interdisciplinary, urban-related research at UCT. In this way, the ACC serves as a base to build relationships with international funders and think tanks. A new partnership with the University of Basel, which includes a joint chair and visiting master's students from Basel, has further strengthened the global impact of the ACC.

Brain Behaviour Initiative

The Brain Behaviour Initiative (BBI) first drew together a mix of experts on the brain and its response to trauma in 2006. By 2008 it was spreading its reach to include, among other things, brain imaging, neurogenetics and neuropsychology. At that time the Cross-University BBI had been funded as an NRF niche research area. Today, it is a collaborative hub of psychiatric neuroscience research that focuses on work particularly relevant to South Africa and Africa. Drug Discovery and Development Centre UCT experts began working together in 2007 to develop a virtual drug-discovery biotech-pharma "company" within an academic environment, working on the production of safe and effective drugs to combat health risks such as HIV/AIDS, TB, malaria and heart diseases. By 2010, Africa's first integrated Drug Discovery and Development Centre (H3D), had grown from a team of five academic postdoctoral research scientists to more than 50. H3D is attracting industry-experienced drug discoverers from pharmaceutical companies around the world and helping to train a new generation of African scientists.



Marine Research Institute

The Marine Research Institute (Ma-Re), launched in 2006, is the premier education facility for multidisciplinary marine research, teaching and training in Africa and the southern hemisphere. There is a strong emphasis on training postgraduates. Ma-Re also conducts an outreach and education programme for school learners. It plays host to the prestigious Nansen-Tutu Centre for Marine Research, which advances knowledge of the marine environment and climate system in the spirit of Nobel Peace Laureates Fridtjof Nansen and Archbishop Emeritus Desmond Tutu. The Nansen-Tutu Centre is a collaboration with the Nansen Scientific Society, Universitas Bergensis, Havforskningsinstituttet, the Council for Scientific and Industrial Research, the Department of Environmental Affairs, the Cape Peninsula University of Technology and the South African Environmental Observation Network.

Minerals to Metals

This project brings together four previously separate research groups - the Centre for Minerals Research, the Bioprocess Engineering Research Unit, the Crystallisation and Precipitation Research Unit, and the Environmental and Process Systems Engineering Group. Together they address key challenges facing South Africa's metal industry. Research focuses on ensuring that minerals are processed more efficiently, especially in the context of a greater emphasis on three imperatives: preserving water resources, minimising power consumption, and the need to beneficiate lower-grade ores in remote areas.
Interdisciplinary Centres of Excellence

Centres of Excellence and Centres of Competence are awarded nationwide by the DST through the NRF. These physical or virtual centres of research are multi-institutional and intended to concentrate existing research excellence, capacity and resources to enable researchers to collaborate across disciplines and institutions on long-term projects that are locally relevant and internationally competitive.

DST/NRF Centre of Excellence in Birds as Key to Biodiversity Conservation

The FitzPatrick Institute of African Ornithology in the Department of Biological Sciences, affectionately known as the Fitztitute, was identified as a Centre of Excellence in 2004. It is committed to developing a



greater understanding of the vast untapped biological resources of the continent through the training of scientists and the pursuit of primary research, from evolutionary ecology to conservation biology. It is ranked the third-best ornithological centre in the world by the Centre for World University Rankings (2017).

DST/NRF Centre of Excellence in Catalysis, c*change

The Centre of Excellence in Catalysis Research, c*change, is hosted by UCT's Department of Chemical Engineering. Its academics and researchers concentrate on four specific research areas – synthesis gas conversion, paraffin activation, value-addition to unique olefinic feedstocks and the underdeveloped small-volume chemicals sector.

UCT Node of the DST/NRF Centre for Excellence for Biomedical TB Research

The Centre of Excellence for Biomedical TB Research (CBTBR) is committed to finding solutions to one of the continent's most threatening diseases, and to use the research as a vehicle for training a new generation of high-quality biomedical research scientists. The UCT node of the CBTBR is based at the Medical Research Council/National Health Laboratory Service/UCT Molecular Mycobacteriology Research Unit at the IDM.

DST Hydrogen Catalysis Competence Centre, HySA/ Catalysis

The South African government has embarked on an ambitious National Hydrogen and Fuel Cells Technologies flagship project, branded as Hydrogen South Africa (HySA). The aim is to establish South Africa as one of the few nations that export high-value products into the growing international hydrogen and fuel cells markets. HySA/Catalysis, co-hosted by UCT and Mintek (South Africa's national mineral research institute), is one of three Centres of Competence tasked with the establishment of a technical and scientific base for distinctly South African contributions to the global hydrogen and fuel cells technology know-how.



Resourcing high-quality research

It is clear that excellent research is inextricably bound to resourcing. Despite an increasingly tough funding environment, UCT researchers have succeeded in raising ever-increasing research grants, while the university has invested heavily to ensure the availability of all the different kinds of resources appropriate to a world-class research endeavour.

Funding research

Total research income from external sources has trebled over the past 10 years, from R613 million in 2008 to R1.569 billion in 2017.

RESEARCH INCOME

YEAR	RESEARCH INCOME (FROM EXTERNAL SOURCES) (R/MILLION)
2008	R613
2009	R734
2010	R713
2011	R841
2012	R894
2013	R957
2014	R1 233
2015	R1 387
2016	R1 578
2017	R1 569
2008 vs 2017	156%

The Research Contracts and Innovation (RC&I) Department has expanded to cope with a 2.37-fold increase over the past 10 years (2 363 in 2017 to the value of R1.39 billion). Donations relating to research generally represent about 8% of total research income.

Meeting the challenge of data-intensive research

UCT has been at the forefront of seeking opportunities to grow dataintensive research capacity. The establishment of the Square Kilometre Array (SKA) – the world's largest radio telescope, located across southern Africa and Australia – created an enormous challenge for local researchers: namely, how can we ensure that we can use the high volumes of data that will be collected from this international project? Astronomy is not the

CONTRACTS AND VALUES

YEAR	VALUE (R/ MILLION)	NUMBER OF CONTRACTS
2008	437	997
2009	519	883
2010	450	1 056
2011	546	1 360
2012	611	1 217
2013	642	1 702
2014	855	2 113
2015	956	2 306
2016	1 101	2 266
2017	1 388	2 363

Some recent highlights in research income include:

- UCT had a bumper year in intellectual property (IP) related revenue in 2016, where total income increased from R3.8 million to R15.2 million.
- UCT received more money in direct grants from the National Institutes of Health in 2017 than any other institution outside North America for the fourth year in a row.
- UCT was awarded a prestigious grant of R85 million over five years to establish a Wellcome Centre for Infectious Diseases Research in Africa, one of 14 major research centres and the only one outside the United Kingdom.

only discipline to face this data deluge. The fields of bioinformatics and geospatial research, among others, are also battling under the weight of their research data.

UCT is working with a range of national partners to develop cuttingedge technologies that will allow researchers in the data-intensive science domains to keep up with the high volumes of research data generated.

On an institutional level UCT launched, in 2014, the first eResearch centre in South Africa to support researchers with all their data needs. From this first step several initiatives have emerged.

In partnership with the University of the Western Cape, North-West University and the University of Pretoria, UCT created the Inter-University Institute for Data-Intensive Astronomy (IDIA). With R50 million over five years, IDIA is working to build capacity and expertise in data-intensive research to enable global leadership on the MeerKAT large survey science projects, a precursor to SKA. The methodologies developed by IDIA will in time be useful in serving the needs of other data-intensive research, including bioinformatics, high-energy physics, climate modelling and fluid dynamics. IDIA offers the opportunity to do master's and doctoral research projects that cover a broad range of core skills aimed at producing competent and competitive data scientists.

UCT is the lead partner in a consortium of six institutions, which, in 2016, were successful in their bid to create a Western Cape data-intensive research facility, today known as Ilifu. The end goal of Ilifu is to build a cloud-based platform that will in time be part of the national solution to the country's big-data science challenge and will also serve other countries.



Building a research ecosystem

OA key element of the strategy to enable research productivity has been to see that UCT provides state-of-the-art support to researchers, making it easier, for instance, to submit applications for grants through university structures and to locate and secure research funding opportunities.

To this end UCT invested in an integrated electronic research administration system, which delivers 21st-century technology-enabled support to researchers during all stages of the research endeavour. This includes a research portal, which allows researchers to make their work visible to potential funders, collaborators and postgraduates, and a research support hub: a virtual one-stop shop for researchers to find information about the wide range of support services on offer through the Research Office among others. Aside from grant writing support, the office facilitates project and grant management, ethics approval and monitoring, to reporting, and dissemination.

Making research results accessible to the world

UCT's approach to disseminating knowledge and scholarly outputs is that they should be shared, not only so that the results can be used by others, but also to avoid the repetition of work which has often been funded with public funds. This even applies to data that has been compiled at great expense and effort to the university: Sharing it makes it possible for new knowledge to continue to grow as others put it to use and also for verification by others of the results of the analysis of the data.

In the past, much knowledge, such as theses and data, was available only in the form of hard copies that were physically archived in UCT's libraries and in laboratories. In the past decade, the university has shifted in support of the principles of open access: for instance, by creating online facilities so that users would not have to come to libraries to access

YEAR	LICENSING (R)	SALE OF Intellectual Property (r)	PROFIT UCT Companies (R)	TOTAL (R)	SPIN-OFF COMPANIES FORMED
2007	49 815	0	0	49 815	1
2008	170 346	150 000	0	320 346	0
2009	77 311	59 184	693 630	830 124	1
2010	3 531 989	0	351 021	3 883 010	1
2011	558 545	0	1 165 597	1 724 142	3
2012	997 829	382 003	362 513	1 742 345	1
2013	1 757 948	0	127 378	1 885 326	1
2014	1 320 853	5 057 415	0	6 378 268	3
2015	3 734 302	38 622	0	3 772 925	2
2016	1 755 948	19 311	13 467 885	15 243 144	2
2017	1 833 737	1 743 480	0	3 577 217	4

COMMERCIALISATION OF TECHNOLOGIES EMANATING FROM UCT'S RESEARCH

INFRASTRUCTURE AND EQUIPMENT

The ability to attract researchers depends, *inter alia*, on the ability to provide infrastructure and equipment. The list below represents facilities that possess equipment of significant research value and prestige that was acquired by the university during the period under review, much of it with the help of funds raised from donors.

- The Cape Universities Body Imaging Centre is a national imaging facility established through collaboration between UCT, Stellenbosch University, the Medical Research Council and Siemens. This core facility boasts a 3 Tesla Siemens Skyra, the first research-dedicated full-body, high-field magnetic resonance imaging (MRI) scanner in Africa, valued at R24 million.
- The Electron Microscope Unit is a state-of-the-art electron microscope facility that hosts the Aaron Klug Centre for Imaging and Analysis and provides access to a number of modern transmission and scanning electron microscopes (TEM and SEM), including an FEI Nova nanoSEM 230, ultra-high resolution electron microscope, an FEI T20 TEM, and a TESCAN MIRA 3 Raman Integrated Scanning Electron Microscope.
- The Scientific Computing Research Unit comprises a Computation and Modelling Laboratory, Informatics and Visualisation Laboratory and a Cancer Translational Science Laboratory.
- The New Analytical Laboratory in the Department of Chemistry has recently acquired Bruker Advance 600MHz and 400MHz NMR (nuclear magnetic resonance) spectrometers, a state-of-the-art Bruker D8 X-Ray Diffractometer and much more.
- IDIA / Ilifu now has access to some three petabytes of storage.

journals or theses; or allowing anyone – not only registered students and academics – to have access to resources. This shift in focus includes reviewing traditional approaches to academic publishing and peer review, and encouraging a different mindset among scientists, who would put up their raw data for scrutiny.

In 2011, the Vice-Chancellor signed the Berlin Declaration on Open Access to the Sciences and Humanities on behalf of UCT, paving the way for the approval of UCT's Open Access Policy, and the launch of the OpenUCT institutional repository, both in 2014. UCT's open repository houses more than 21 000 journal articles, teaching resources, book chapters, theses, dissertations, working papers and research reports. An important by-product of this approach is raising the visibility of African scholarship.

Facilitating innovation

Fostering an entrepreneurial spirit among UCT researchers has become an increasingly high priority. UCT promotes social entrepreneurship and social innovation, as well as innovation for commercial gain. UCT's RC&I office assists with the commercialisation of technologies emanating from UCT's research, moving them through the different technology readiness levels until they can enter the market, either as a spin-off company or via licensing the IP. UCT also added a variation to its investment policy, allowing it to invest some of its own reserves in spin-out companies, and has already invested some R50 million in this way.

Conclusion

It is impossible to do justice to the vast landscape of research at UCT. This chapter cannot capture the scale and depth of the research groups and projects across the university, or the enormous spread of

talent, hard work, creativity and commitment among the multiple teams and individuals who help to keep the research boat afloat, from the most visible, world-leading researchers to the professionals and administrators who support them.

The annual research reports are available online, and include all publications and authors over the past 10 years. There can be no doubt that over the past decade, the university's research has continued to strengthen and grow, in excellence, impact and reach, in ways that have defied the odds, given declining state funding for research, increasing international competition for research grants, and UCT's need to keep up with the equipment and research infrastructure offered by the world's leading universities.

As the next decade awaits, UCT will have to face enormous challenges in the area of research to ensure continued growth. One of the most pressing issues will be to ensure that transformation proceeds in such a way that UCT develops and retains talented, young academics along the career pipeline. Another critical success factor will be whether there is continued pressure on national research funding and, if this is the case, how the university will continue to attract international funding.

CHAPTER TWO UCT'S IMPACT



UCT aspires not only to be a globally competitive research and teaching institution, but also to respond with research-based solutions to the highly complex socio-economic, environmental, health and technological concerns that beset this country, the rest of Africa and the world at large. The impact of UCT research on global knowledge production can be measured by the frequency with which UCT research is cited by other scientists, and in this regard the university's research impact is widely recognised.

The impact of the university's research on communities and society is harder to measure, and generally can only be described through case studies and examples. Aside from research impact, UCT is committed to engaged, socially relevant teaching, along with extending opportunities for students to become directly involved in socially responsive learning. This contributes to their education as future leaders and responsible global citizens.

This chapter reports on some of the university's key strategic interventions set up to promote engaged scholarship and social responsiveness.

Engaged scholarship policy

Social responsiveness is an umbrella term that refers to all forms of engagement with external non-academic constituencies. It embraces engaged scholarship involving academic staff doing research with, in and relevant to communities, government and society. It also includes civic engagement involving students' community service, and community engagement involving professional and support staff using their expertise.

During the past decade, UCT promoted the strategy of social responsiveness with a number of key interventions. In 2012, following

a few years of development, the university adopted a policy on engaged scholarship to ensure that what the institution was reporting and accrediting was based on the application of UCT's core academic activities – teaching and research – rather than just any volunteer or developmental activity that students or staff might engage in. Engaged scholarship thus refers to an academic's application of scholarly and/ or professional expertise for an intentional public purpose or benefit, which demonstrates engagement with external, non-academic constituencies.

Social Responsiveness Report

The Social Responsiveness Report was formalised and enlarged to become more comparable to the annual Teaching and Learning Report and the annual Research Report, both of which are approved



by UCT's Senate and Council. The Social Responsiveness Report is a more difficult report to conceptualise and for which to provide empirical evidence of impact. Several approaches were tried. One year the report included serious essays on aspects of social responsiveness. Another year the report comprised mainly selected case studies. More recently, there have been attempts at a comprehensive account from faculties. The problem is that the boundary of what should be included is unclear and is different in different faculties. In some definitions, almost everything is included because so much research will have an impact on social well-being – such as the discovery of new drugs. Yet in other definitions, only work that directly engages with nonacademic communities is included. But then where would one put the work of academics who write articles for the public to influence policy makers, or political commentary and blog writing? The 2014–2015 Social Responsiveness Report included, for the first time, examples



of how professional, administrative support and service (PASS) staff contributed to the university's social responsiveness agenda by volunteering their work-related skills and professional expertise.

The report is still a work in progress, but is always an impressive reflection of the number of people and projects that are making a direct and immediate impact on local communities and broader society in policy and practice, and in the education of UCT students.

Social Responsiveness Awards

The Social Responsiveness Award was established in 2009 to recognise and honour academics whose research and teaching contributes directly to the improvement of people's lives as well as to promoting social responsiveness activities within UCT. The award is made at graduation ceremonies. See table overleaf for list of recipients since 2009.

Alan Pifer Research Award

The Alan Pifer Research Award is the Vice-Chancellor's annual prize in recognition of outstanding welfare-related research. Established by the UCT Fund of New York in 1993 to honour the achievements of Alan Pifer, the award highlights the strategic goal of promoting socially responsive research, and honours a UCT researcher whose outreach work has contributed to the advancement and welfare of South Africa's disadvantaged people.

UCT PLUS

Part of UCT's mission is to instil a sense of social responsiveness in students so that they go into the world prepared to initiate positive change. UCT Plus is a Vice-Chancellor's strategic project, officially launched in 2016 and managed by the Careers Service, to provide formal recognition of students with extracurricular involvements. Their participation is acknowledged on their academic transcript upon completion of the programme.

The UCT Plus student's journey begins with an online profile that includes goals and a tracking system that verifies volunteer hours. Students are prompted to reflect upon their experience to help identify the knowledge and skills gained through their extracurricular involvement. The programme also prepares students for the working environment by improving their communication skills. In 2017, more than 1 000 students joined the programme.



ALAN	PIFER	AWARD	RECIPIENTS

YEAR	RECIPIENT
2008	 Professor Raj Ramesar (Faculty of Health Sciences), head of the Division of Human Genetics and director of the UCT/MRC Human Genetics Research Unit, discovered a common genetic mutation linked to colorectal cancer in some of the most neglected communities in the Northern Cape of South Africa. In response he developed an intervention programme which successfully lowered mortality and morbidity in those communities.
2009	 Professor Dan Stein (Faculty of Health Sciences): mental disorders remain the most stigmatised and grossly neglected of medical conditions. Professor Stein, head of the Department of Psychiatry and Mental Health, has dedicated more than 20 years of his life to the study of mental illness, with work ranging from clinical neuroscience through to public mental health.
2010	Professor Sue Parnell (Department of Environmental and Geographical Sciences and member of the African Centre for Cities) for her work on governance, planning and resource management of cities to provide for, and promote inclusion of, the urban poor.
2011	Professor Kelly Chibale (Faculty of Science): Under the leadership of Professor Chibale, H3D strives to train a new generation of African scientists with the skills required to combat Africa's high burden of disease. The goal is to bridge the gap between basic research and clinical studies and ensure the pipeline of drug discovery and development remains on the continent.

YEAR	RECIPIENT
2012	Emeritus Professor Eric Bateman (Faculty of Health Sciences) is a world-leading pulmonologist whose most important work has tackled the challenges of respiratory diseases such as asthma, chronic obstructive pulmonary disease and TB. He founded the UCT Lung Institute in 2000, which has since become an international beacon of innovative research.
2013	Professor Crick Lund (Faculty of Health Sciences), director of the Alan J Flisher Centre for Mental Health, for his work in addressing the treatment gap for people with mental illness in low- and middle-income countries.
2014	Professors Robin Wood and Linda-Gail Bekker (Faculty of Health Sciences), founders and directors of the Desmond Tutu HIV Centre and Foundation, for excellence in research, treatment, training and prevention of HIV-related diseases and infections in southern Africa.
2015	Professor Ingrid Woolard (Faculty of Commerce) for her notable contributions to the analysis of poverty and inequality and unemployment in South Africa, and the way she used her data to undertake a number of highly influential research papers to carry her work through to official policy.
2016	 Professor Chuma Humonga (Faculty of Law, Department of Private Law), for her many contributions to reconciling traditional customary regulatory frameworks and common law and the Constitution.
2017	Professor Heather Zar (Department of Paediatrics and Child Health) for her research and innovation in child health, which has helped improve and save the lives of thousands of children.

GLOBAL CITIZENSHIP AND LEADERSHIP COURSE

This is an optional course open to all students. It addresses global issues as well as issues of local development and personal agency, and includes an option to undertake a community service project with academically guided reflection on the learning gained from that project. Some degree programmes, such as engineering, have made the course compulsory. It is discussed in more detail in the Teaching and Learning chapter on page 98.

ENGAGED SCHOLARSHIP PROGRAMME

The Engaged Scholarship Programme, which kicked off in 2015 with 19 participants, is another national first for UCT. Offered under the auspices of the Research Office and the University Social Responsiveness Committee, the programme provides an important space for professional development of staff wanting to embed highquality engagement in their research or teaching.



The programme involves a series of workshop-seminars (led by experienced engaged scholars from UCT), interspersed with some preparatory reading, reflection and brief practical applications. Topics include: case studies of engaged scholarship in action; institutional policies pertaining to engaged scholarship; documenting engaged scholarship for academic promotion and/or publication; and current international debates on engaged scholarship. Participants are eligible for mentoring on funding proposals, journal articles and ad hominem promotion applications that incorporate components of engaged scholarship. Between 2015 and 2017, a total of 64 staff members participated in the programme.

UCT KNOWLEDGE CO-OP AND OTHER SOCIAL ENGAGEMENT INITIATIVES

The UCT Knowledge Co-op was established in 2010 as an initiative of the Vice-Chancellor and Deputy Vice-Chancellor: Research to make the research resources of the university more available to community-based organisations, local government and non-governmental organisations (NGOs). The Knowledge Co-op provides a junction where research and social responsiveness intersect, brokering relationships between community organisations with a "research question", and postgraduate students who are conducting their academic work in related fields. The students reformulate the questions from civil society organisations and communities into a format that fits their dissertation projects, or compulsory service-learning and experiential training component. The projects address a wide range of needs, from information and communications technology support to early childhood development, prisoner rehabilitation and sustainable community gardens. Just a few of the completed projects give an idea of their practical applications:



- Research into new material and design for a pre-school fence that does not get stolen, can't hurt children and does not limit visibility.
- Study to understand barriers to racial integration in schools and suggest ways to increase cultural awareness.
- Investigation into the difficulties HIV/AIDS patients experience in adhering to second-line antiretroviral treatment.
- Study to suggest an appropriate sanction for offenders in a partial criminalisation model for prostitution.

The Knowledge Co-op's research agenda is set by external, nonacademic constituencies, exposing students and academics to realworld challenges requiring intervention.

A formal NRF-funded evaluation of the Knowledge Co-op over the years 2010–2012 concluded that the Co-op had increased opportunities for student learning through engaging in "real-life situations" and for contributing to communities; and external partners not only valued

the research, but also ascribed value to having the UCT brand or the UCT logo on the final product or report.

Since 2011, 450 project topics were submitted to the Knowledge Co-op by 104 external partners. A total of 171 projects were facilitated, with 69 academics supervising the 386 students involved. Most projects were research-based (87 dissertations and seven internships) while 62 community service projects offered more practical support to community partners. The balance consisted of volunteer research or connections to relevant resource persons.

KNOWLEDGE CO-OP FACTS



In the first three years, all funding came from the Vice-Chancellor's Strategic Fund. Since 2014 the bulk of funding has come from a foundation, with the Vice-Chancellor's Strategic Fund making up the balance (between 15% and 32% of the budget).

The Co-op also results in conventional academic outputs. The following academic outputs were reported in 2017:

- Three published articles and contribution to a further article.
- A Centre for Social Science Research working paper.
- Four conference presentations by academic supervisors and four more by master's students.
- Longer-term engagement of academics with a non-profit as a site for personal research.

THE VICE-CHANCELLOR'S STRATEGIC INITIATIVES

In 2008 four university-wide strategic initiatives were identified to address critical challenges that were shaping South Africa's future: poverty and inequality, poor education in most public schools, violent crime and climate change. The Vice-Chancellor set these up as interdisciplinary endeavours, headed by a director or pro vicechancellor, to investigate the underlying factors and examine ways to bring change into the sectors affected by these challenges.

These research groupings were set up in the belief that the university's intellectual resources across disciplines and faculties could be applied more effectively under a common umbrella, resulting in a much greater impact on these challenges. The whole would be greater than the sum of the parts, not only in the content of what was produced, but in the efficiency of engaging communities, the public, politicians, lobbyists and other research units in universities, NGOs and government.

Initially funded by the VC's Strategic Fund, these initiatives have mostly become financially self-sufficient through external funding or through being incorporated into the mainstream activities of a faculty.

African Climate & Development Initiative (ACDI)

UCT's active response to the climate change and development challenge brings together the institution's breadth and depth of research and teaching in many areas. Set up in 2011, with Professor Mark New as Pro Vice-Chancellor in the lead, its objectives include increasing scientific knowledge and understanding, educating and training new generations of researchers and decision makers, increasing awareness among policy makers and promoting better informed strategies to find solutions. ACDI focuses on collaboration, working to coordinate and grow what is, it is believed, one of the largest concentrations of expertise on climate change and sustainable development within Africa. Since its inception, ACDI staff and associate members have grown from five in 2011 to 34 in 2018.

Beyond UCT, ACDI brings together academics, NGOs, business and government to tackle Africa's climate and development challenges. ACDI also convenes a flagship interdisciplinary master's degree in Climate Change and Sustainable Development, and supports research master's and doctoral students through projects and programmes.

In April 2017 the AXA Research Trust awarded the ACDI a research chair in African Climate Risk, to be held by Professor Mark New.



2 Poverty and Inequality Initiative (PII) At the heart of this initiative are implications of the unequal distribution of wealth and income in South Africa. Under the leadership of Pro Vice-Chancellor Professor Murray Leibbrandt, this initiative came to life in 2010 with the convening of researchers working on poverty and inequality from the many disciplines who mostly did not know of each other's work. It has grown into a national venture that draws together research and ideas from universities countrywide, while engaging with other relevant institutions, with government and the NGO sector. Spanning five UCT faculties, its work is two-pronged:

- To provide central institutional support and academic leadership, promoting knowledge sharing and cross-disciplinary collaboration.
- To facilitate and drive UCT's leadership of the Mandela Initiative, which began in 2012 when UCT hosted the "Towards Carnegie 3" conference. The PII supported a steering committee of academics, vice-chancellors, public policy makers, ministers and National Development Plan commissioners, who met regularly to identify research gaps and coordinate the work. The Mandela Initiative has recently concluded with a conference and publications of the research done over the five years and policy briefs in many sectors.

Another PII partnership brings together the relevant SARChI research chairs at all of South Africa's universities to develop strategies to address poverty and inequality.

7 Safety & Violence Initiative (SaVI)

ODr Guy Lamb was appointed to lead the initiative in October 2012, though the first activities and funding of research began in 2011. SaVI facilitates debate, research and interventions across UCT,



focused on understanding and responding to violence and promoting safety. Scholars from various departments, centres and units work together to develop theory on the particulars of crime.

Among the current SaVI projects are:

- Promoting safety in Khayelitsha: SaVI is a member of the South African Police Services/civil society research sub-forum on improving safety and policing in Khayelitsha, and interacts regularly with community organisations and police in the area. The initiative is also undertaking research into community policing there.
- Violence against women and children: SaVI has been commissioned by the national government's Inter-Ministerial Committee on Violence against Women and Children, and the United Nations Children's Fund, to manage an interdisciplinary research project on the risk and protective factors in relation to this issue in South Africa.
- Youth and gang violence: SaVI has hosted events and undertaken research on gang violence and its prevention in the Western Cape. It works closely with NGOs focused on youth violence prevention,

including Amandla EduFootball and Waves for Change. Working under the auspices of SaVI, Don Pinnock published a seminal book, *Gang Town*, on gangs in the Western Cape townships, with suggestions of how to address the problem.

- Safe-Up UCT: A smartphone information-sharing app that seeks to empower students and staff to play a more active role in making the campus safer.
- Social Cohesion Project: SaVI partnered with the African Centre for Migration and Society in a year-long nationwide project that ran to June 2017 in 16 communities, with the research findings to be fed into capacity- and peace-building projects conducted by provincial partners.

Schools Improvement Initiative (SII) Launched in May 2012 in cooperation with the Western Cape Education Department, the SII is a multi-stakeholder approach to addressing the challenge of poor performance by township and rural pupils. Headed by Dr Jonathan Clark since its inception, the SII mobilises university-wide resources to improve the quality of teaching and management in three primary and two secondary schools in Khayelitsha with which it partners. SII decided at the outset to focus on Khayelitsha as a distinct geographic area, with the intention of expanding UCT's reach to create partnerships that take in a broad

range of groups, organisations, institutions and individuals, to help the government improve the country's quality of education. Through the SII, UCT engages practically, developmentally and critically with the problems of schooling in a bid to break the cycle of underachievement and failure.

65 |



The SII supports and facilitates a range of student professional practice, service learning and volunteerism at its partner schools, including those studying occupational, speech and language therapy, audiology and social work, and student teachers. The SII also works with the UCT Knowledge Co-op, with student volunteers through Ubunye's TeachOut and Inkanyezi, and with the Faculty of Law's Legal Welfare Community Organisation (LAWCO) and Students for Law and Social Justice.

100UP and GILL NET learners

As part of an initiative to increase the number of UCT students from Khayelitsha, the largest township in Cape Town, 100UP is run by the SII and targets learners from disadvantaged backgrounds, coaching them to thrive and succeed in their university studies. The learners are assisted over three years by staff and students across different faculties and departments in UCT who help them build intellectual, social and cultural capital. The pilot project in Khayelitsha began in 2011, when five Grade 10 learners were identified from each of the 20 high schools in the area. 100UP is now running at capacity, with a total of 300 learners per year (100 learners from each of Grades 10–12), enrolled in the programme.

An additional group of "university potential" Grade 12 learners, branded the GILL NET group to identify the effort to ensure learners likely to be accepted for university study do not fall through the cracks, is brought on board after June each year. This extends UCT's reach as broadly as possible across the 20 Khayelitsha schools as well as schools in Mitchells Plain.

In 2014, 70 of the first cohort of 100UP and GILL NET learners entered UCT as 100UP Plus students.

The high number of 100UP matriculants who obtained universitylevel matric passes in recent years is encouraging. In 2014 and



2015, 91.8% and 88.1% of 100UP students enrolled at universities respectively. Their performance in the project demonstrates the success of this pioneering UCT intervention.

A longer-term objective is to use the 100UP programme to build institutional knowledge and experience that can better inform the university's bridging programmes and school-based interventions.

Conclusion

This chapter has focused on the university's initiatives in promoting the importance of social responsiveness at UCT over the decade – increasing the application and synergistic use of UCT's intellectual resources to have an impact on society. It is not intended to report on all the new initiatives driven by hundreds of staff and students that are evidence of this impact – these are reported in the annual social responsiveness reports. They could not possibly be done justice in a chapter.

UCT sometimes describes its mission as not only aspiring to be the best *in* Africa, but the best *for* Africa. Excellence, of course, helps increase the impact the university has in society and in the world. Without making that difference, however, the excellence would mean little. That this belief is demonstrated daily by researchers, staff and students is core to what UCT stands for as a university.



HONORARY DEGREES

Since 1920 UCT has sought to honour distinguished leaders across a wide range of disciplines and accomplishments. The list of awardees (2008-2018) appears below.

2018: Yvonne Mokgoro (Law), Brian O'Connell (Education)

2017: Zackie Achmat (Law)

2016: El Anatsui (Fine Arts), Janette Deacon (Literature), Francis Wilson (Literature), Peter Folb (Science), Zoë Wicomb (Literature)

2015: Ahmed Kathrada (Law), Thuli Madonsela (Law), Dikgang Moseneke (Law), Okwui Enwezor (Literature), John Britten Wright (Literature), Johannes De Villiers Graaff (Economic Science), Kenneth Reid (Law)

2014: Salim Abdool Karim (Science in Medicine), Bernie Fanaroff (Science), William Carmichael (Law), Henry Louis Gates Jr (Literature), Rodney Douglas (Medicine), William Kentridge (Literature), David Fanning (Literature), Michael Thackeray (Science)

2013: Klaus-Jürgen Bathe (Science), Allan Gray (Economic Science), Daniel Kunene (Literature), Derek Yellon (Science)

2012: Zakes Mda (Literature), David Sanders (Science), Nicholas Haysom (Law), Basil Jones and Adrian Kohler (Literature), Marlene Dumas (Fine Arts), Jonathan Ellis (Science)

2011: Stella Petersen (Education), Martin West (Literature), Mary Burton (Social Science), David Potter (Engineering)

2010: Tito Mboweni (Economic Science), Jerry Coovadia (Medicine), Peter Magubane (Literature), Victor Ritchie (Education), David Lewis (Economic Science), Navi Pillay (Law), Lynda Chalker (Law), Antony Sher (Literature), Janet Suzman (Literature)

2009: Gavin Mooney (Social Science), Richard Dudley (Social Science, awarded posthumously), Brian Warner (Science), George Ellis (Science)

2008: Archie Mafeje (Social Science, awarded posthumously), Jonathan Dorfan (Science), Claire Palley (Law)

SOCIAL RESPONSIVENESS AWARD RECIPIENTS

YEAR	RECIPIENT
2009	 Dr Lillian Artz, founder and director of the Gender, Health and Justice Research Unit (Faculty of Health Sciences), which tackles the high levels of violence against women in South Africa. Professor Diane McIntyre, of the School of Public Health and Family Medicine (Faculty of Health Sciences), for her decades of contributions to national policy on health finance. Dr Ailsa Holloway, director of the Disaster Mitigation for Sustainable Livelihood Programme (Faculty of Science), which generates new knowledge in the emerging field of disaster management science.
2010	 Dr Hanna-Andrea Rother, principal research officer in the Centre for Occupational and Environmental Health Research (Faculty of Health Sciences), for her work on the sale and use of illegal and highly toxic pesticides among the urban poor in Cape Town's peri-urban communities.
2011	 Dr Sindiso Mnisi Weeks, Associate Professor Dee Smythe, and Dr Aninka Claassens of the Rural Women's Action Research Project, run by the Law, Race and Gender Research Unit in the Faculty of Law, for providing support to rural people (especially women) who live under systems of customary law and traditional governance. Associate Professor Ralph Hamann, research director at the Graduate School of Business (Faculty of Commerce), for his work on the Southern Africa Food Lab, which brings together different role players in the regional food system to find innovative solutions to food security problems.

Associate Professor Mohamed Adhikari (Faculty of
Humanities) for his service to his alma mater, Harold Cressy
High School, through a number of heritage projects.
The Environmental Evaluation Unit (Faculty of Science)
for the work it does to enhance the governance of
complex human-ecological systems through collaborative
interdisciplinary research across natural resource sectors,
mostly in poor and marginalised communities.
Professor Pierre de Vos (Faculty of Law) for consistently
providing both printed and electronic media with analysis,
insight and explanation on both narrowly focused
constitutional law questions, as well as on broader socio-
political questions.
Mr Stuart Hendry, director of the commerce faculty's
Development Unit for New Enterprise and co-founder of the
Southern Africa Sustainable Development Initiative (SASDI),
in recognition of SASDI's Starting Chance campaign, which
aims to transform 30 shack-based crèches into formal centres
of excellence for early learning development.
Associate Professor Sophie Oldfield of the Department of
Environmental and Geographical Science (Faculty of Science)
for building a research-teaching partnership with Gertrude
Square and the Valhalla Park United Front Civic Organisation
in Cape Town.
YEAR

<u>YEAR</u> 2015
2016
2017

CHAPTER THREE UCT IN THE WORLD

11

111



Knowledge creation through research is a collaborative process. It benefits from the different perspectives that can be brought by researchers and teachers working in various environments, including communities and countries outside South Africa. UCT contributes to the development of global knowledge by participating in partnerships around the world. In 2008, UCT adopted the vision to be an "Afropolitan" university – signalling a particular focus on developing research and expertise about the continent, and drawing on expertise across the continent to become a hub for exchange between academics in Africa and the rest of the world. In UCT's Strategic Planning Framework 2016–2020, the international focus has become broader, but still incorporates the vision for building African expertise in research and higher education.

Beyond research, UCT's international vision can be seen in almost every aspect of the university's activities: in teaching and learning – through the attributes UCT seeks to instil in graduates, so that they will accept the challenge of becoming responsible, socially aware global citizens; the influence of staff members from other countries in Africa and the rest of the world; the demand on infrastructure to accommodate the influx of foreign students; international exchange agreements and research collaborations that help not only to enlarge the sphere of influence of UCT academics but also to draw on a wider spectrum of resources and expertise on issues that are important for Africa (see box of Africa-related research groupings opposite).

UCT's African vision

Bringing African research into the wider global arena was a hallmark of UCT's research enterprise over the past decade. In 2008 UCT recognised the need to foster and become known for research that uses its geographic location and continental partnerships to provide a

SOME OF UCT'S AFRICA-FOCUSED RESEARCH GROUPINGS AND ACADEMIC PROGRAMMES

- African Centre for Cities
- African Cinema Unit
- African Climate and Development Initiative
- African Collaboration for Quantitative Finance and Risk Research
- African Gender Institute
- African Institute of Financial Markets and Risk Management
- African Paediatric and Specialist Fellowship Programme
- Centre for African Studies
- Centre for Infectious Disease
 Research in Africa
- Centre for Information
 Technology and National
 Development in Africa
- Drug Discovery and Development Centre
- Future Water Institute
- Hatter Institute for Cardiology
 Research in Africa

- Institute for Communities and Wildlife in Africa
- Institute for Democracy,
 Citizenship and Public Policy
 in Africa
- Institute for Humanities in Africa
- Marine Research Institute
- Mineral Law in Africa
- Minerals to Metals Initiative
- Pan African Bioinformatics
 Network for H3Africa
- FitzPatrick Institute of African Ornithology
- Policy Research in International Services and Manufacturing
- The Library's African collections
- The UCT Timbouctou
 Manuscripts Project
- Southern African Labour and Development Unit
- South African Tuberculosis
 Vaccine Initiative

portal to the rest of Africa, and to enable global research conversations. The university put considerable energy into increasing collaborations across the continent (collaborations within Africa were fewer than with researchers on other continents) and in the global south.

One strategic initiative aimed at strengthening links with academic centres on the continent was the All Africa House Fellowship Programme (AAHFP). Launched in 2009 with a view to attracting young or mid-career academics from African universities outside South Africa, the AAHFP was made possible by the Vice-Chancellor's Strategic Fund, with the aim of helping fellows prepare their research for publication, under the guidance of a UCT mentor. An impressive 17 journal articles and book chapters have since been published by

NUMBER OF INSTITUTIONS WORLDWIDE COLLABORATING WITH UCT THROUGH CO-AUTHORED PUBLICATIONS*



* Based on co-authored publications appearing in Elsevier's Scopus database, over the five-year period 2012–2016. (Figures for 2017 are not yet available.)

TOP COLLABORATION WITH INSTITUTIONS WORLDWIDE THROUGH CO-AUTHORED PUBLICATIONS

	INSTITUTION	COUNTRY	*CO-AUTHORED PUBLICATIONS EXCLUDING PHYSICS & ASTRONOMY	CO-AUTHORED PUBLICATIONS ON PHYSICS & ASTRONOMY
1	Harvard University	United States	388	492
2	University of Oxford	United Kingdom	364	521
3	Imperial College London	United Kingdom	331	9
4	London School of Hygiene and Tropical Medicine	United Kingdom	325	1
5	University College London	United Kingdom	277	481
6	Johns Hopkins University	United States	203	12
7	Columbia University	United States	199	484
8	University of Washington	United States	196	475
9	University of Amsterdam	Netherlands	178	480
10	University of California at San Francisco	United States	176	0
11	University of Toronto	Canada	174	476
12	Centre National de la Recherche Scientifique	France	173	642
13	National Institutes of Health	United States	167	0
14	University of Basel	Switzerland	151	0
15	University of Cambridge	United Kingdom	138	491
16	Utrecht University	Netherlands	137	143
17	King's College London	United Kingdom	136	352
18	Emory University	United States	135	1
19	University of British Columbia	Canada	134	476
20	University of Queensland	Australia	133	8

* Based on co-authored publications appearing in Elsevier's Scopus database, over the five-year period 2012–2016. (Figures for 2017 are not yet available.) Figures without physics and astronomy are given since papers in these two fields often include thousands of authors and therefore frequently do not represent close collaboration.



the combined 29 fellows so far. A number of high-profile visiting professors have also been hosted under this programme.

Several other initiatives are described in this chapter. There is still a long way to go, but UCT today is recognised for its extensive research networks across Africa, which are strengthening research across the continent. This recognition contributes to UCT's appeal as a partner of choice to universities globally.

Partnerships and networks: an African voice on the global stage

UCT intensified its internationalisation strategy over the period under review, building networks and contacts throughout the world. This deepened even further with the combining of the portfolios of research and internationalisation under one deputy vice-chancellor in 2014.



* Based on co-authored publications appearing in Elsevier's Scopus database, over the five-year period 2012–2016. (Figures for 2017 are not yet available.)

81

FLAGSHIP CAREER DEVELOPMENT PROGRAMMES

UCT has played a leading role in developing research capacity across the continent, training PhD and postdoctoral fellows. In addition, the university has been invited to participate in some generously funded structured programmes:

Carnegie Project: Growing the Next Generation of Academics for Africa

This extensive programme runs at UCT, the University of the Witwatersrand, Makerere University (Uganda) and the University of Ghana and aims to train a community of future academics.

120 early-career researchers trained at UCT between 2011 and 2016:



The Mastercard Foundation Scholars Program

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



Universities Science, Humanities, Law and Engineering Partnerships in Africa (USHEPiA)

USHEPiA promotes collaboration among established African researchers and builds institutional and human capacity in African universities. Faculty members upgrade their qualifications through sandwich PhD and other programmes. (Sandwich PhD programmes allow UCT students to spend part of their time at their home institutions.)









83 full degree fellowships awarded since 1996



UCT has joined a number of global networks. Each of the networks to which UCT belongs has different objectives and therefore brings different benefits to UCT; all of them contribute to its mission to be a research-intensive university.

The Worldwide Universities Network

Towards the end of 2009 UCT joined the Worldwide Universities Network (WUN): a consortium of leading research institutions, partnering in a collaborative effort to create a research community in response to global needs and challenges. UCT hosted the WUN's first annual general meeting in Africa, in 2014, the same year UCT's Vice-Chancellor was appointed to a two-year term of office as Chair of the WUN Partnership Board. WUN soon grew its membership by including more institutions from the global south. Two universities from Africa joined, and another two from Latin America have recently joined the network. See current member universities opposite.



WUN MEMBER UNIVERSITIES

- 1. Maastricht University (Netherlands)
- 2. National Cheng Kung University (Taiwan)
- 3. Renmin University (China)
- 4. Tecnológico de Monterrey (Mexico)
- 5. The Chinese University of Hong Kong (China)
- 6. Universidade Federal de Minas Gerais (Brazil)
- 7. University College Dublin (Ireland)
- 8. University of Alberta (Canada)
- 9. University of Auckland (New Zealand)
- 10. University of Bergen (Norway)
- 11. University of Bristol (United Kingdom)
- 12. University of Cape Town (South Africa)
- **13.** University of Ghana (Ghana)
- 14. University of Leeds (United Kingdom)
- 15. University of Massachusetts Amherst (United States)
- 16. University of Nairobi (Kenya)
- 17. University of Rochester (United States)
- **18.** The University of Sheffield (United Kingdom)
- 19. University of Southampton (United Kingdom)
- 20. The University of Sydney (Australia)
- 21. The University of Western Australia (Australia)
- 22. University of York (United Kingdom)
- **23.** Zhejiang University (China)

International Alliance of Research Universities

Universities are operating in an increasingly complex, global and challenging environment. It is vital that they learn from one another and ensure that African-specific perspectives are part of the conversation. In January 2016, UCT became the only university from a developing country (other than China) to join the International Alliance of Research Universities (IARU) – an alliance of 11 of the world's leading universities. Joining IARU provides an ideal platform for the university to share – and gain – knowledge and resources on a global scale. See member universities below.

IARU MEMBER UNIVERSITIES

- 1. Australian National University (Australia)
- 2. ETH Zurich (Switzerland)
- 3. National University of Singapore (Singapore)
- 4. Peking University (China)
- 5. University of California, Berkeley (United States)
- 6. University of Cambridge (United Kingdom)
- 7. University of Copenhagen (Denmark)
- 8. University of Oxford (United Kingdom)
- 9. The University of Tokyo (Japan)
- 10. Yale University (United States)
- 11. University of Cape Town (South Africa)



African Research Universities Alliance

In 2015, the African Research Universities Alliance (ARUA) was launched, a powerful initiative including 16 universities (currently) in nine African countries, aimed at building African research excellence by bringing together the strongest research universities on the continent. The Vice-Chancellor was a co-initiator (and first chair) of the alliance, along with Professor Adam Habib, vice-chancellor at the University of the Witwatersrand. ARUA, like other research university consortiums around the world, including the League of European Research Universities and the Group of Eight in Australia, advocates for strengthening research and postgraduate training in higher education. The intention is to bring together their distinctive fields of expertise into complementary and coordinated programmes of research and training towards specific goals, while also addressing Africa's key development priorities. In 2016 ARUA appointed its first general secretary, Professor Ernest Aryeetey, former vice-chancellor of the University of Ghana. In 2017 it launched its first formal research programme: the Centres of Excellence. ARUA has proposed the operation of Centres of Excellence in the 13 thematic areas that it has adopted; UCT leads two of these: Climate and Society, and Poverty and Inequality.

ARUA MEMBER UNIVERSITIES

- 1. Addis Ababa University (Ethiopia)
- 2. University of Lagos (Nigeria)
- 3. University of Ibadan (Nigeria)
- 4. Obafemi Awolowo University (Nigeria)
- 5. University of Ghana (Ghana)
- 6. University of Dar es Salaam (Tanzania)
- 7. University of Nairobi (Kenya)
- 8. University of the Witwatersrand (South Africa)
- 9. University of Rwanda (Rwanda)
- 10. University of Cheikh Anta Diop (Senegal)
- 11. Makerere University (Uganda)
- 12. Stellenbosch University (South Africa)
- 13. University of Pretoria (South Africa)
- 14. Rhodes University (South Africa)
- 15. University of KwaZulu-Natal (South Africa)
- **16.** University of Cape Town (South Africa)



Global University Leaders' Forum

The Global University Leaders' Forum (GULF), comprising presidents of 27 of the world's top universities, is convened by the World Economic Forum (WEF) at its annual meeting in Davos, Switzerland. Former Vice-Chancellor, Professor Njabulo Ndebele, was first invited to be a member of GULF and the invitation was subsequently extended to his successor, Dr Price, who attended GULF annually from 2009 until 2018. UCT is the only African university represented. GULF works to address relevant educational, scientific and research agendas, while also providing intellectual support to the WEF. The networking opportunities have been invaluable, offering informal, rare face-toface contact with South African and international ministers, business leaders and scholars, as well as influential UCT alumni from around the world. UCT's reputation gains enormously from the opportunity to speak directly to opinion leaders, journalists, politicians, African heads of governments, and investors seeking to do business in Africa.

UCT is also a member of other international networks, including the Southern African-Nordic Centre, the Association of Commonwealth Universities, the Australia-Africa Universities Network, Southern African Regional Universities Association, and the Association of African Universities. Although the level of activity by UCT in some of these is generally low, it is uneven across different faculties and disciplines.

Building relationships for student mobility

June 2016 marked 20 years since the launch of UCT's International Academic Programmes Office (IAPO). It has hosted thousands of international students and academics at UCT and forged many partnerships with international universities and institutions. A particularly dramatic success story has been the semester study abroad (SSA) programme, which started with 252 students in 2001 and grew to a high of 1 054 students in 2016. SSA generated an income of almost R80 million for UCT in 2016, much of which went directly to faculties. These numbers dipped in 2017 as a result of changes to the academic year in the wake of the student protests and concerns about unrest on the campus, but began to recover in 2018.

A suite of mobility programmes that deserve special mention are those that fall under the broad umbrella of the Erasmus programmes. UCT has been part of the Erasmus Mundus programmes with the European Union since 2011, with many postgraduate students and staff members receiving scholarships to study and do research at various European universities. They return bringing with them their new contacts, research opportunities and insights to share with the larger university community.

STUDENT AND STAFF FORMAL MOBILITY AGREEMENTS BETWEEN UCT AND INSTITUTIONS ACROSS THE GLOBE

PARTNERS

Africa • Addis Ababa University • Makerere University • Université Cheikh Anta
Diop de Dakar • University of Dar es Salaam • University of Ghana • University of
Nairobi • University of Rwanda • University of Yaoundé I • University of Yaoundé II
• The University of Zambia

Asia, Australia and New Zealand • Australian National University • National University of Singapore • Peking University • Sun Yat-sen University • The Chinese University of Hong Kong • The University of Auckland • The University of Queensland
• The University of Sydney • The University of Tokyo • The University of Western Australia • Zhejiang University

Europe • Dalarna University • École Normale Supérieure de Cachan • ETH Zurich • Institut d'Études Politiques de Paris (Sciences Po) • Institut National des Sciences Appliquées de Rennes • ISM Dortmund • Johannes Kepler University Linz • Leiden University • Ludwig-Maximilians-Universität München • Lund University • Maastricht University • Munich Business School • Norwegian University of Science and Technology • Oslo and Akershus University College of Applied Sciences • Stockholm University • The University of Nottingham • The University of Sheffield • Tilburg University • University of Amsterdam • Université Paul-Valéry Montpellier 3 • University of Basel • University of Bergen • University of Bristol • University of Cambridge • University of Copenhagen • University of Leeds • University of Leuven • University of Oslo • University of Oulu • University of Oxford • University of Pisa • University of Southampton • University of Stuttgart • University of Tübingen • Uppsala University • Vrije University • University of York

North and South America • Arcadia University • Bentley University • Boston University
• Bryn Mawr College • Council on International Educational Exchange • Emory
University • IES Abroad • International Studies Abroad

Middlebury College
 National Autonomous University of Mexico
 North Carolina
 State University at Raleigh
 Princeton University
 Simon Fraser University
 State
 University of New York at Albany
 Swarthmore-Macalester-Pomona Consortium

• Telluride Association • The University of British Columbia • University of Alberta

• University of California • University of Massachusetts Amherst • University of Michigan • University of North Carolina Greensboro • University of Richmond

University of São Paulo • University of Wisconsin-Madison • Vanderbilt University

Wesleyan University
 Western Michigan University
 Yale University
 York University



The Erasmus Mundus programmes have been succeeded by Erasmus+, and UCT continues to play an active part.

UCT has formal mobility agreements with institutions across the globe. Some of these bring paying students for a semester, some are exchange agreements that allow students and staff to attend universities elsewhere at reduced or no cost, in exchange for their staff and students coming to UCT. Both activities increase the international exposure of the university community.

Another initiative that has brought many students from all over the world to UCT is the Global Short Academic Programmes, in line with a growing international trend towards more focused shortterm study opportunities of two to six weeks, particularly during the long vacations. Some of the income derived from these programmes provides scholarships that enable UCT students from disadvantaged backgrounds to gain international experiences.



Particularly notable international short courses at UCT include:

- IARU Global Summer Programme, which provides short international study opportunities at 11 prominent research universities (including UCT) to students from all the IARU universities.
- The UCT Global Academy, a signature four-week international programme on specialised themes offered to students from across the globe.
- The London School of Economics–UCT July School, a two-week intensive programme that offers a range of university-level courses.

The difficulty of providing international experiences for UCT students, given the high cost of travel and living abroad, has driven an increasing focus on "internationalisation at home" in recent years. This involves creating opportunities for local students to live and learn in an internationalised environment, alongside international students in learning spaces, residences and social spaces. There is also a variety of international student societies such as the East African Society, open to all students, and the United Nations Students Association which sends teams of students abroad each year to participate in UN-related functions.

Internationalisation at home is significantly helped by the presence of international full degree (IFD) students on campus: more than 4 500 from more than 100 countries.

Strengthening the alumni family

During the period under review, UCT continued with its ambitious programme of local and overseas engagements with as many alumni as possible in order to share its vision of UCT as a global institution.

Dr Price regularly visited alumni in the UK, Canada and the US, Australia and New Zealand, meeting core groups of alumni who are loyal to and passionate about UCT. The public events in London and New York frequently attracted over 100 attendees. Over the years he also visited and met alumni in Tanzania, Uganda, Kenya, Nigeria, Namibia, Mauritius, Switzerland, Germany and France.



UCT has since established alumni chapters in Botswana, New Zealand and Switzerland. By 2013, there were well-established alumni offices in the US, UK and Canada, along with a new one in Australia, to supplement the work done by the Development & Alumni Department on campus. UCT alumni chapters can also be found in various South African cities.

With more than 162 000 alumni in 104 countries around the world, UCT launched a new social networking platform in February 2017 called UCT Alumni Connect, designed to enhance the university's engagement with alumni and facilitate connections across the global community. UCT Alumni Connect has 5 680 members and is growing steadily.

Many UCT achievements are built on the generous and unwavering support of alumni who invest both time and means in the university and its students.

The UCT Association of Black Alumni (UCTABA) launched the "One Thousand for a Million" fundraising campaign in 2010, aimed at raising R1 million through small monthly contributions from 1 000 alumni for the UCTABA bursary fund. This provides bursaries to academically talented black students, especially those wishing to pursue a career in academia. Such gifts from alumni and friends of UCT are key to making up the critical shortfall in state funding that all South African universities face.

Building local networks

UCT also builds and maintains relationships with other universities in the country, particularly through Universities South Africa (USAf), formerly Higher Education South Africa, representing the vicechancellors of South Africa's 26 public universities. It was renamed in 2016. Dr Price was elected Deputy Chair from 2012 to 2014, and was on the executive for some five years. In the Western Cape, UCT is an active member of the Cape Higher Education Consortium (CHEC), with the appropriate deputy vice-chancellor being a director on the Board.

Conclusion

The importance of internationalisation at UCT is evident in the number of programmes and enabling mechanisms that are partially or fully focused on increasing global reach and impact. However, describing these initiatives only scratches the surface of the real scope of internationalisation at UCT. The greater part of it comes about through the routine activities of academics: attending international conferences and workshops, sitting on international panels, going on sabbatical, visiting professorships, external examining and, increasingly, through virtual meetings (at unconventional times of day to account for different time zones).

Internationalisation is transformative – for students who gain entirely new perspectives, for researchers whose impact is increased, and for institutions that can take their place on the world stage and contribute meaningfully to global change. In the current climate of growing nationalism amid increasingly interconnected "wicked" problems, it is more important than ever that UCT continues to be a global player.

HEADCOUNT ENROLMENTS 2011 - 2017 BY RACE, SHOWING PERCENTAGE OF TOTAL

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
SA African	4354	5068	5277	5754	6012	6256	6247	6353	6771	7100
% of total incl. International	19.3	21.1	21.3	22.5	23.6	24.5	24.5	24.9	26.5	27.3
% of total excl. International	23.8	25.7	26.2	27.5	28.2	29.0	28.9	27.9	28.4	29.9
	0050	0000	0507	0000	0500	0000	0000	0000	0000	0010
SA Coloured % of total incl.	3252 14.4	3623 15.1	3587 14.5	3699 14.5	3530 13.6	3608 13.7	3620 13.7	3622 13.0	3830 13.1	3810 13.3
International	14.4	10.1	14.5	14.3	13.0	13.7	13.7	13.0	13.1	13.5
% of total excl. International	17.8	18.4	17.8	17.7	16.6	16.7	16.7	15.9	16.1	16.0
SA Indian	1522	1630	1666	1674	1701	1731	1819	1848	1934	1880
% of total incl. International	6.7	6.8	6.7	6.6	6.5	6.6	6.9	6.6	6.6	6.6
% of total excl. International	8.3	8.3	8.3	8.0	8.0	8.0	8.4	8.1	8.1	7.9
SA White	8768	8983	9131	9004	8814	8483	8141	8155	7982	7168
% of total incl. International	38.8	37.4	36.9	35.3	33.8	32.2	30.9	29.3	27.3	25.0
% of total excl. International	47.9	45.6	45.3	43.1	41.4	39.3	37.6	35.8	33.5	30.2
Intermedien el	4000	4007	4011	4000	4750	4750	4000	5000	F004	4000
International	4320	4307	4611 18.6	4636 18.2	4753	4753	4686	5030	5384	4899
% of total incl. International	19.1	17.9	10.0	10.2	18.2	18.1	17.8	18.1	18.4	17.1
	000	404	500	705	10.10	1400	1000	0001	0001	0004
Other % of total incl.	392	401	500	765	1240	1499 5 7	1820 6.0	2801	3321	3824
% of total incl. International	1.7	1.7	2.0	3.0	4.8	5.7	6.9	10.1	11.4	13.3
% of total excl. International	2.1	2.0	2.5	3.7	5.8	6.9	8.4	12.3	13.9	16.1
τοται	22600	2/012	04770	75577	26050	26220	16000	22000	20222	20601
TOTAL	22608	24012	24772	25532	26050	26330	26333	27809	29222	28681
TOTAL LESS INTERNATIONAL	18288	19705	20161	20896	21297	21577	21647	22779	23838	23771

CHAPTER FOUR **TEACHING AND LEARNING**

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The past decade has seen great uncertainty in higher education globally, when many observers anticipated a complete sea-change with respect to the teaching functions of the traditional university. These changes were characterised by rapid expansion of access and student numbers, globalisation with greater mobility of students, and because of that, greater competition from universities anywhere in the world, demands to internationalise the staff and student bodies, growing inequality, shrinking public resources for higher education relative to student numbers and, perhaps most profoundly, the digitisation of learning resources such as Massive Open Online Courses (MOOCs). This was the time when the founder of one of the most famous MOOCs at Stanford, Sebastian Thrun, proclaimed that in 2050 there will be only 10 universities in the world delivering higher education – such was the

anticipated disruption to the sector. Around the world, universities were rethinking how they should address their educational mission, and how they should reposition themselves as a result.

As a South African university, UCT faces additional challenges given its colonial and apartheid histories and legacies. The 1997 White Paper commits the higher education sector to the dual challenges of addressing both growth and equity in a national system characterised by low participation rates and high attrition. As access has increased, a far larger number of students enrolled are not adequately prepared for university due to the many challenges in the basic education provided in government schools. Yet UCT has chosen to accept these students and adapt its systems to support them. The university has long fostered a commitment to equity of access *and* success, as evidenced in UCT's extended curriculum programmes, as well as its proud track record of "alternative admissions" testing – both reaching back to the 1980s.

Over the past 10 years UCT has appraised and faced these global and local challenges and the concomitant opportunities that crises sometimes provide. Teaching and learning have always been core to the mission of the university and have enjoyed increased attention over the past decade. This chapter describes how UCT has responded to the challenges reflected above, and how the university has, in its strategic plans, addressed the following five priorities in teaching and learning:

- Improving success rates
- Elevating the teaching and learning missions of the university
- Instilling specific attributes in its graduates to prepare them for the 21st century
- Innovating with digital technology
- Pursuing curriculum reform, taking particular account of the critique of coloniality.

| 101 |



Priority 1: Improving Success Rates Student demographics

UCT's student headcount enrolment increased in line with the 2011 *Size and Shape* report at a rate of 2.9% per annum to a total of 28 724 students in 2017. Fifty-two percent of the undergraduate population was comprised of SA black, coloured and Indian students, in comparison to 44% in 2008. The proportion of self-declared white undergraduates decreased from 37% in 2008 to 25% in 2017.

At the postgraduate level, the number of SA black, coloured and Indian students increased by 1 577 between 2008 and 2017, although the proportion decreased from 34% in 2012 to 33% in 2017, despite a 10% drop in the proportion of white enrolments. This was largely due to the marked increase in the number of SA students opting not to declare their race (up from 6% of the 2012 postgraduate enrolment to 16% in 2016) as well as the increase in the number of international postgraduate students from 1 898 in 2012 to 2 762 in 2017, while the proportion remained at approximately 25%. The admissions policy and equity mix are discussed again in the *Transformation* chapter on page 202.

Reviewing undergraduate performance

Undergraduate performance is often measured through two main indicators:

- Course success rates.
- Academic progression of successive intakes of first-time entering undergraduate (FU) students, ie whether they complete the qualification and how long it takes.

Course success rates

As at 2017, these indicators saw an overall undergraduate course success rate of 86% (compared to 85.4% in 2008). The pass rates had risen steadily over the decade to 88.4% in 2015 but dropped slightly in 2016. This is not surprising, given the impact of the stressful events of 2017 and the suspension of classes for more than four weeks just before exams. The drop extended across all South African race groups, as well as international students.

Performance continues to vary according to population group.

RACE	PASS			
	2015	2016	2017	
African	82.3%	81.6%	77.9%	
Coloured	86.9%	87.1%	84.6%	
Indian	88.3%	88.5%	84.9%	
White	94.0%	93.6%	93.0%	
International	89.1%	88.5%	86.1%	
GRAND TOTAL	88.4 %	87.7 %	85.0 %	

UNDERGRADUATE COURSE SUCCESS RATE BY RACE (2015 - 2017)

The differences in average performance by population group point mainly to the differences in the average schooling of the different groups, but also socio-economic disparities (which parallel the schooling experience). While the overwhelming majority of students are admitted with high National Senior Certificate (NSC) scores, a range of factors point to significant differences in circumstances. While 90% of white entrants had attended top-performing schools (NSC-performance deciles 1 and 2), only 54% of black entrants had attended schools in these decile bands. In 2016 for example, 34% of the black NSC entrants in comparison with only 4% of the white entrants were supported through financial aid. Language is another barrier to success, with students whose second or third language is English performing less well especially in the first two years of university while their English is improving. While 92% of the white entrants were English speakers, only 11% of the black entrants reported that their home language was English.



In addition to these pre-university factors, some black students report that the university environment itself results in their inferior performance. Some black students report they feel like outsiders, their self-confidence is undermined; and that the environment is unfamiliar and intimidating – something that most students experience to some degree.

The gap in performance is greatest in first-year courses with a 14 percentage point difference in 2017, compared to 13 percentage points in 2008. Black students in 2008 had a first-year pass rate of 76%. This increased to 81% in 2014 but dropped to 78% in 2016, then to 77% in 2017.

As will be seen from the discussion below, UCT has done a great deal since 2008 to support students' transition from school to university, including the implementation of the First-Year Experience (FYE). It is not known what the success rates would have been without these interventions, but clearly, UCT has not yet cracked the problem at first and second-year levels.



The success rates at the third- and fourth-year courses (3000- and 4000-level) improved for all race groups, with South African black students showing outstanding improvement, thereby reducing the performance gap between black and white students at exit level (4000) to up to 10 percentage points in 2017, compared to 17 percentage points in 2008.

Degree completion rates

The cohort analysis for the 2012 intake for three- or four-year degrees shows that 72% had completed a three- or four-year degree by the end of 2016, while 8% of the 2012 entrants were still busy with their undergraduate studies after five years. Thus, the potential completion rate of the 2012 cohort was 80% – exceeding the target of 75% cohort completion rates for all undergraduate programmes set in 2011 by UCT in the *Size and Shape* plan. For the 2008 cohort, the comparable completion and continuation rates after five years were 69% and 6%, ie a total of 75%.



SUCCESS RATE IN LEVEL 3000 COURSES BY RACE: 2008-2016

While the completion rates have shown strong improvement and the differences in completion rates between white and black SA students have reduced over the five cohorts that can be measured (ie up to 2012), they remain significant with the potential completion rates of 71% and 87% for black South African versus white students respectively.

Review of postgraduate performance

The *Size and Shape* report (2011) proposes substantial growth at the postgraduate level (especially the professional and research master's and doctoral programmes) to a proportion of 39% of total enrolments in 2020, compared to 29% in 2008. UCT is well on track to meet this target, having reached 37% by 2016. Master's and doctoral enrolments made up 26% of the total enrolment in 2017 up from 18% in 2008.

Since enrolments can grow without a proportional increase in graduation numbers, it is the number who actually graduate that is really the most important indicator of the improvement of UCT's



SUCCESS RATE IN LEVEL 4000 COURSES BY RACE: 2008-2016



POTENTIAL COMPLETIONS: 2008-2012

performance over the decade. The tables below and opposite show the remarkable success in growing postgraduate numbers and graduates as planned in the first five-year strategic plan. Bachelor's degree qualifiers increased as a result of some growth in student numbers, but also an increase in graduation rates.


QUALIFICATION / YEAR OF QUALIFICATION	2008	2017	% CHANGE
UG Diplomas and Cert	122	317	160%
Bachelor's Degrees	2 918	3 383	16%
PG Diplomas	646	944	76%
Honours	828	1 163	40%
Master's	836	1 139	36%
Doctorates	151	277	83%
Grand Total	5 501	7 223	31%

NUMBER OF STUDENTS QUALIFYING IN 2008 AND 2017 BY QUALIFICATION

The cohort analysis of this period does, however, point to the need to address retention rates that fall below levels regarded as satisfactory. The completion rates for PhDs is between 58% and 69%, as against about 50% nationally. But for PhD students the dropout rate increased from 26% of the 2009 cohort to 38% of the most recent, 2013 cohort. However, what is interesting is that at postgraduate level, very few students fail or are academically excluded. Most leave in good academic standing, so other factors – possibly the need to start earning, or financial difficulties, or motivation – are the main reasons for non-completion.

This data points to the need, first, for a better understanding of the reasons for these patterns, and for more targeted support both at faculty and institutional levels.





Advancing and improving the learning experience

UCT faculties are constantly seeking to improve and transform the learning experience. Below are some examples of the innovations over the past decade:

Faculty of Commerce:

- From 2012 to 2016, the critical thinking foundation course BUS1036 (Evidence Based Management) evolved from fully face-to-face to fully online, on different platforms.
- The UCT College of Accounting developed an internationally accessible free teaching platform (LearnAccounting) to help thousands of South African and international students master complex accounting and business principles. In collaboration with the Finance and Accounting Services Sector Education and Training Authority and online education supplier GetSmarter, the online

| 110 |

initiative offers multilingual, video-based learning on key financial and accounting concepts.

The faculty also offers a wide range of short online, non-credit-bearing courses which afford working professionals and others the chance to strengthen their knowledge and stay abreast of trends, particularly in specialised areas. These have been offered in combination with GetSmarter since 2010; more than 30 000 students have completed and passed a Commerce online short course. The faculty also offers three undergraduate courses in blended learning/online format.

Faculty of Engineering & the Built Environment:

- For the past few years, engineering programmes have critically engaged with curriculum development to improve the quality of student learning and to increase EBE's contemporary relevance to broader society.
- Chemical Engineering has almost fully rolled out its new curriculum, with the other departments close behind.
- In December 2015, the *Climate Change Mitigation* MOOC was launched on the Coursera platform by the Energy Research Centre (ERC), located in the Department of Mechanical Engineering.
- In the Department of Construction Economics and Management, a very successful online course entitled "Property Development and Investment" is offered via the GetSmarter platform. In 2017, close to 500 participants successfully completed the course, which is recognised as GetSmarter's best-attended offering. The department is currently developing a second course focused on property management.



Faculty of Health Sciences:

- The faculty extended its teaching platforms beyond the Cape Town Metro area, to include rural teaching sites in Vredenburg and George. In George, the pilot programme started as a continuation of the university's existing service to the Eden district, expanding its clinical teaching for medical and health science students to include the area's secondary and district hospitals. In Vredenburg, students benefit from multidisciplinary, supervised learning opportunities that help them also understand the social context of health and disease.
- To address the shortage of clinician scientists in South Africa, the faculty introduced two research training tracks in parallel with the professional MBChB programme, namely the intercalated Bachelor of Medical Science Honours/MBChB track, and the integrated MBChB/PhD track. The former is available to MBChB students who have completed the first two years of study. Subsequently students can enrol in the latter track which enables them to undertake a PhD concurrently with their MBChB studies.



- A significant milestone came in 2015 with the accreditation of the faculty's first purely online postgraduate diploma, the PG Diploma in TB-HIV Management, for doctors and nurses at primary-care level.
- In 2015, the pathology department began developing an interactive electronic learning platform for undergraduate medical training, which runs in conjunction with publisher Edge Learning Media.
- At the end of 2015, the faculty launched a MOOC: *Understanding Clinical Research: Behind the Statistics*, for postgraduate students.
- Various divisions use a range of blended learning activities and open educational resources, which may also be available to practitioners worldwide for skills development.
- The Division of Physiotherapy has introduced the Critical Health and Humanities course, allowing students to engage with relevant social issues and their impact on health.

Faculty of Humanities:

- UCT's first MOOC, *Medicine and the Arts: Humanising Healthcare*, organised in conjunction with the Faculty of Health Sciences, focused on historical inequalities in the medical systems of developing countries and attracted more than 1 300 participants.
- In 2014 the Humanities Education Development Unit (HUMEDU) piloted the Writing Hubs project: online spaces set up on course VULA sites for tutors and students to interact and get feedback on draft texts. After piloting the intervention in six first-year courses, the project was rolled out in challenging second-year courses in the faculty as well. In 2018 the HUMEDU in partnership with departments runs Plus Tuts with Writing Hubs on 23 first-year courses and 12 second-year courses run by 12 teaching assistants and about 90 tutors. Evaluation research has shown that the Writing Hubs and Plus Tuts have had significant impact on improving students' coursework marks but overall less impact on exam marks.





- In April 2017, the faculty's Centre for African Studies rolled out the first African Studies interdisciplinary undergraduate major for UCT. Called "Representations of Africa", it is presented in collaboration with HUMEDU, and focuses on ways in which Africa has been imagined and represented across the ages.
- The faculty's Student Engagement Unit was established in 2015 and has continued the development of its integrated approach to student recruitment, orientation, curriculum advice, psychosocial support, and mentoring. Recruitment initiatives such as the Wannabes Project target schools which do not traditionally feed the humanities admissions process, offering admissions workshops, university visits, National Benchmark Test (NBT) access, and some monitoring of admitted students' progression.
- The Faculty Board agreed in 2015 to establish a Dean's Award for Teaching Excellence. The first recipients of this award were Dr Bodhisattva Kar (Historical Studies), Dr Shose Kessi (Psychology) and Dr Chris Ouma (English). It was designed to supplement the university's Distinguished Teacher Awards.



Faculty of Law:

- Interventions to support students struggling with a new university learning context include a First-Year Experience project, a legal writing project, an academic support programme and many dedicated subject tutors available to assist students, as well as a proliferation of tutorials offered in the first year.
- First-year LLB students now complete a computer literacy assessment, which enables the faculty to direct those in need of support to the appropriate training.
- "Tech buddies" assist first-year students with IT-related queries during the first few weeks of the academic year.
- The faculty is reassessing the LLB curriculum and teaching and learning practices to balance the Eurocentric focus while bearing in mind the global context of law.
- The faculty has collaborated with Harvard in delivering a course affiliated to the Harvard MOOC on copyright. *CopyrightX: UCT* is aimed not only at lawyers in professional practice, but also at librarians, artists and others interested in copyright law and the development side of intellectual property law. Law students are also eligible to apply, and participation is reflected on their transcripts.

Faculty of Science:

- Statistics1000, primarily a service course taken by about 1 800 students annually, most of whom are registered in the commerce faculty, became the first science faculty course to be offered in blended learning mode ie lectures largely pre-recorded and delivered online, and tutorials in class. The new delivery mode has resulted in a dramatic improvement in pass rates for this course.
- The faculty adopted a new approach to selecting students for the Extended Degree Programme (EDP): Instead of selecting students up front on the basis of school-leaving performance, all students are admitted on the same programme and selection for the EDP takes place after a series of tests in week five. Students thus have an opportunity to participate in assessing their readiness for university



studies and to make early adjustments to their academic load in order to maximise their chances of success.

- The faculty has run successful Science Winter Schools for five successive years: First-year students with limited exposure to science are introduced to scientific activities and scientific thinking; they visit the astronomical observatory facilities in Sutherland, the Two Oceans Aquarium and the National Accelerator Centre, to mention a few examples, and are stimulated to think about the contribution that science and scientists can make to the full range of challenges experienced in South Africa.
- Whiteboard peer learning was introduced: Traditional tutorials were replaced with group-based tutorials where problem-solving is centred around a whiteboard. This encourages the formation of friendships and science is learnt in a non-threatening space. This peer learning has proved to be good for the science education of the students and their personal well-being.
- The faculty has established peer mentoring for undergraduates, to provide a supportive environment in which students can turn to more senior students for help and guidance.
- New master's courses have been introduced in Applied Ocean Science; Climate Change and Sustainability; Data Science; and Biostatistics and Urban Studies.

Centre for Higher Education Development:

• A review in 2012 confirmed CHED's role as an academic faculty-like structure, and broadened its role within UCT. CHED units include the Academic Development Programme, the Careers Service, the



Centre for Innovation in Learning and Teaching, the Centre for Educational Testing for Access and Placement, and the Centre for Extra Mural Studies.

Graduate School of Business:

- In the past 10 years, the GSB has introduced several important changes to its flagship Master of Business Administration (MBA) programme, launched specialised master's degrees and strengthened its PhD programme.
- The MBA was substantially redesigned in 2013/14 as part of the submission to the South African Council for Higher Education for re-accreditation as a Professional Master's at NQF level 9. Launched in 2016, the new-look curriculum includes immersion in practice in an emerging economy characterised by extreme inequality.
- In partnership with the Africagrowth Institute, the GSB is now

offering an MCom (Development Finance) that aims to ensure that Africa produces enough development finance experts to meet the development needs of the continent.

- A new MPhil with a specialisation in inclusive innovation was launched in 2013. Students explore inclusive business model innovation across several themes, including healthcare, education, finance, housing, the environment and sustainability.
- The GSB Case Writing Centre was established in 2016 to boost the availability of good, academicallysound teaching material on the social and economic realities of emerging market business. The GSB is seeking to develop the largest body of Africa-focused teaching material on the continent.







Financial aid

One of the key obstacles to success for students is that they do not have sufficient funds to pay their fees and adequately care for themselves, so they are routinely forced to take on extra jobs, with the consequent added stress. UCT's interventions in this respect continue to play a critical role in student success rates.

While the government's National Student Financial Aid Scheme (NSFAS) has focused on the needs of students from the poorest households, UCT supports students whose household incomes are above the NSFAS threshold. So while these students do not qualify for NSFAS funding, they are also not wealthy enough to pay their full fees. They fall into the gap where there is no financial aid, and generally they cannot obtain bank loans.

A new student financing model was introduced in 2009 for students with an annual gross family income of

a maximum R400 000, which increased to a maximum R600 000 (in 2017 rands). The financial assistance provided to so-called Gap-funded students is a course-fee bursary combined with a UCT loan offer.

At UCT almost two out of every five students depend on financial aid to study, with a large portion of the funding coming from donor support. This makes a significant contribution to UCT's commitment to ensure no academically-deserving student is turned away due to financial hardship. These partnerships with donors, which often include crucial wraparound support to students, are a critical intervention to raising success rates, particularly of disadvantaged students. Some of the most prominent examples are:

- The Michael & Susan Dell Foundation partnership with UCT began in 2010, and by 2017, the R66 million investment had seen 315 bursaries awarded to UCT students. Provided with financial aid on a merit and need basis, the Dell Young Leaders receive holistic wraparound support throughout their university experience, to graduation and first employment. All Dell Young Leaders are first-generation university students. The annual spend is R11 million for 50 students in professional degree programmes. As at 2017, 51 students had graduated from UCT, 40 were in permanent employment, and 11 were in postgraduate studies.
- Bathe Leadership Programme, The Klaus-Jurgen in November has 2014. launched to date benefitted 40 UCT students thanks to a R20 million donation from Bathe, a UCT alumnus and professor at the Massachusetts Institute of Technology in the US, following several years of collaboration with fellow engineering academic, UCT's Professor Alphose Zingoni. Open to undergraduate students in all six faculties, the



scholarships are offered for two years to students deemed to have outstanding leadership qualities and a strong sense of social justice. Full funding covers tuition fees, accommodation and living expenses.

- The Mastercard Foundation partnered with UCT in 2014 to provide 338 scholarships over 10 years to academically talented, yet economically disadvantaged, students from sub-Saharan Africa to study at UCT. The Scholars Programme is a R700 million initiative to educate young people to lead change, and make a positive social impact in their communities.
- The first cohort of 100UP learners, beneficiaries of a high-school intervention hosted by UCT's Schools Improvement Initiative, began their studies at UCT in 2014. Once they become UCT students, their support continues via 100UP Plus, with the upward trajectory of both programmes largely dependent on donor funding. The programme receives considerable support

from local and international donors, particularly from South Africa and the UK through the UCT Trust based in London. The biggest corporate sponsors have been HSBC Africa, Nedbank, AfriSam, AECI, Primedia and Foschini (for 100UP Plus).

UCT is also a beneficiary of significant funding for students in financial need from the following organisations:

- Moshal Scholarship Program
- Thuthuka Bursary Fund
- Students for a Better Future
- Gallagher Foundation
- Link-SA
- John and Margaret Overbeek Trust
- Frank Robb Charitable Trust
- Doris Crossley Foundation
- Mauerberger Foundation Fund
- FirstRand Foundation
- ABSA
- Boehringer Ingelheim
- Oasis Crescent Fund
- The David and Elaine Potter Charitable Foundation
- The Justin and Elsa Schaffer Family UCT Scholarship Trust
- Julian Baring Scholarship Fund
- Nigel and Judith Weiss Educational Trust
- Various Sector Education and Training Authorities (SETAs)
- MTU South Africa
- Percy Fox Foundation
- Hillensberg Trust
- Garden Cities Inc

First-Year Experience

First-Year Experience (FYE) was established in 2013 to help students negotiate the transition from school to university, to guide them in making use of the many resources available to assist first-years, and to help them achieve their full potential and develop a strong sense of belonging at UCT.

One of the FYE's main features is early assessment, which allows faculties to monitor students' early academic progress – based on grades from mid-first-semester tests and assignments – and assess whether students should seek help from faculty student advisors, residence wardens and tutors, and specific support services. In some faculties, the early assessment is used as diagnostic information to place students into an extended curriculum where their academic load is reduced.



Workshops provide first-years with both academic and nonacademic support, on topics like writing skills, handling stress, financial management and exam preparation.

Academic Development Programme

UCT's Academic Development Programme (ADP) is considered a leader in its field nationally.



ADP has its roots in the university's pioneering Academic Support Programme, established in the 1980s, which facilitated access and offered academic and psychosocial support to black students entering the university. An important belief underpinning the work of the ADP over the past four decades is that most students experience difficulties at university, not because they are deficient in some way, but because of major structural inequalities that persist in South African educational systems and in society at large.

The preferred support method is to work in close partnership with the faculties, and to embed developmental materials and activities in credit-bearing courses and carefully constructed curricula. The ADP also provides educational support to postgraduate students and equips UCT staff with skills for teaching in diverse classrooms.

All UCT faculties run some form of extended curriculum programme that gives students the opportunity to tap into additional academic support, usually by taking an extra year to complete their degrees. This extra time usually occurs at first- and second-year



level, and gives students the opportunity to attend courses in smaller classes that revisit or reinforce foundational content and makes use of pedagogies specifically targeting transitions from school to university, or from first to second year. Other forms of support are courses, modules and workshops on academic language, quantitative literacy and digital literacy. In addition to the extended curriculum programme, the Faculty of Commerce's Education Development Unit started offering a successful augmented style curriculum which does not require students to spend extra time to complete the degree.

The overall number of new first-year foundation students on the extended curricula across all faculties has grown from 496 in 2008 (9.8% of all first-years), to 679 in 2017 (11.5% of all first-years). This represents a 17.4% increase in the proportion of students entering extended curricula. The percentage of foundation students has grown by 6% over the decade to 16.3% of the undergraduate total. An indication of success in the ADP is that students on both extended and augmented style programmes have, on average, outperformed

students on the regular curriculum in a number of courses: This has been the case in Engineering second-year mathematics courses as well as in mathematics and financial reporting courses offered by the Commerce EDU. A significant change in the ADP has been recognition that students need support beyond the first year. In Humanities, for instance, the number of second-year courses offering additional ADP support had increased to 11 by 2017. These programmes have played a critical role in increasing throughput, particularly among black South Africans from poorer schooling backgrounds.

One of the longstanding concerns associated with the ADP is that students may feel stigmatised by having to invest additional time to bring their education up to the level required for their programme of study. UCT is seeking ways to deal with this problem by creating curricula that address a wider diversity of educational preparedness, with more choice and more flexibility so that students can opt in or out, depending on their needs.

Academic development programmes are available to all students who need academic support, and are not related to race, or the schools attended by students. Another factor to emphasise is that the ADP reaches many more students than the ones following extended curriculum components. So, for instance, the ADP's writing centres reach more than 1 000 students (undergraduate and postgraduate) per year in individual consultations, and several thousands more through workshops. The ADP also provides access and support for postgraduate students, for instance in the Postgraduate Bridging Programme of the National Astrophysics and Space Science Programme, and in innovative online and blended research literacies short courses.

Priority 2: Elevating the teaching and learning mission of the university

Many of UCT's teaching staff are nationally and internationally recognised academics at the forefront of their respective research fields. Recognising, rewarding and publicising this excellence sends a signal to lecturers that it is not only research that is valued. UCT teachers have won the national teaching awards almost every year (see the sidebar on page 151), and the recipients of UCT's own Distinguished Teacher Awards and other teaching awards are publicised at graduations and special events and in the media (see Distinguished Teacher awardees on page 149).

In 2010 Senate agreed to the establishment of a teaching track that would allow academics whose particular strength was teaching to become tenured and be promoted even if they were not doing research, although the status quo has not yet changed and they cannot





be promoted above senior lecturer without the research component. Secondly, the ad hominem promotions criteria were revised to increase the weight accorded to teaching performance, and to have subminima teaching scores for promotion in most faculties.

UCT's Centre for Higher Education Development (CHED) and specifically CHED's Centre for Innovation in Learning and Teaching (CILT) offer staff development in areas of curriculum and course design, evaluation, research, and innovation in learning and teaching, and how to make best use of the campus-wide online learning platforms and tools to teach and to facilitate student digital literacy initiatives. These range from workshops to postgraduate diplomas and all new academic staff are encouraged to undertake such courses.

During the past 10 years a large number of UCT staff members have participated in specific academic staff development programmes and activities, including the New Academics Practitioners' Programme (NAPP), which is covered in more detail in the *Research* chapter, teaching with technology workshops and seminars, guest lectures as well as the very popular annual UCT Teaching and Learning conference.

Some of the postdoctoral programmes that are specifically designed to prepare fellows for careers in academia, offer courses or seminars on teaching and learning as part of the postdoctoral award.

Priority 3: Preparing Graduates for the 21st Century

The world into which graduates are moving is significantly different to that experienced by previous generations: The tech revolution, increased automation, an increasingly blended workforce of employees teaming up with freelancers and an emphasis on teamwork are just some of the changes graduates will experience. Most importantly, very few of today's graduates will spend most of their lives in one career or job.



Universities around the world are posing questions about the purpose of higher education. In particular, they ask how it can help develop graduates who have depth in disciplinary areas of expertise, but also have breadth of knowledge to be creative, adaptable to changing work environments and the multiple careers they are likely to encounter throughout their lives. UCT wants graduates to be prepared not only for finding a job, but for creating jobs for themselves and others by launching start-up ventures.

The strategic plan conceptualised in 2008 made explicit a number of attributes UCT wanted all students to have on graduation – no matter what their qualification. These included a finely-tuned sense of social justice; to be the kind of engaged citizens who care deeply about their society, their fellow South Africans and the environment; have better knowledge of the African continent; basic competence in indigenous African languages; and for a proportion of graduates to be inspired to pursue research and academic careers.



UCT has developed specific programmes around these attributes that are described below. These include the Global Citizen Programme (GCP), the Hasso Plattner d-school, UCT-Plus, MyCareerCogs, increased student international exchange, various entrepreneurship initiatives and the Multilingualism Education Project.

Global Citizenship Programme

In 2009, the GCP was planned with the aim of offering all students access to a course that would promote community engagement, equip them to think analytically and debate knowledgeably about local and global issues, in line with UCT's mission of producing graduates who are socially engaged and concerned with social justice.

The programme, piloted in 2010, was hailed as an important start in teaching students about global citizenship. With support from the DG Murray Trust, the programme developed crucial partnerships with faculties, each of which took it up in different ways.

For example, it was adapted by the Faculty of Engineering & the Built Environment as a credit-bearing course on social infrastructure, open to all students, and has grown from 60 to 100 places. It focuses on exposing students to the lived realities of local communities, many of which are under-resourced. The course challenges students to think about issues of development and community engagement as part of developing their professional expertise.

In the Faculty of Commerce, the GCP is very popular with firstyear students, starting in O-Week when they debate issues around poverty, education, gender inequality and climate change.

Each Faculty of Commerce core course offers a global citizenship lecture during first year, and the information systems honours



community service component requires students to complete the first two short courses of GCP. The Faculty of Law is working to link the GCP to the community service block.

Hasso Plattner d-school

During the decade under review Hasso Plattner, founder of the Hasso Plattner Institutes of Design Thinking at Potsdam and Stanford Universities, and co-founder of software company SAP, together with UCT leadership developed and funded a d-school in Africa at UCT.

Students and professionals from the public, private and nongovernment sectors come to the d-school to learn the design-led



approach, and develop the creative mindset, that will enable them to innovate in response to the opportunities and challenges presented by the increasingly complex world we inhabit.

It offers semester-long programmes to postgraduate students, and shorter courses to UCT staff and participants on other programmes at the university. In addition, professionals, undergraduate students from all tertiary institutions in the country and staff at non-government development agencies operating in other countries on the continent participate in the d-school's training and capacity building programmes. In this way the d-school supports UCT's aim of being a regional leader in education, training and research in design-led innovation.

The school will soon get its own building (see *Meeting UCT's Growing Needs* chapter) from which to run its wide range of programmes.

UCT Plus

UCT Plus is a Vice-Chancellor's strategic project, managed by Careers Service in CHED. It is an interactive leadership programme that provides formal recognition for students with extracurricular involvements. Their participation is acknowledged on their academic transcript upon completion of the programme. The programme is explained in more detail in the chapter on *Student Life, Leadership and Activism*. (See also *UCT's Impact* chapter on page 48)

Multilingualism Education Project (MEP)

The language policy which promotes multilingualism was revised by Senate in 2011. There has also been an expansion of programmes for learning indigenous languages, driven by the MEP, and aimed at preparing students to participate fully in a multilingual society. The MEP was responsible for the launch and rollout of the Masithethe isiXhosa (Xhosa Communication) course, which has been completed by hundreds of staff and students. Courses were piloted in disciplines including Law, Philosophy and Psychology, and among students involved in the Social Responsiveness Group. The MEP has also been responsible for a number of other projects, including the development of the Multilingual Online Glossaries, designed to promote subject concept literacy among students for whom English is not their first language.

Promoting Entrepreneurship

The UCT Strategic Plan addresses the need to develop entrepreneurial skills in curriculum and pedagogy, and through strategic partnerships within the institution.

Social entrepreneurship: The Bertha Centre

The Bertha Centre for Social Innovation and Entrepreneurship, established in 2011 at the UCT Graduate School of Business, is the

first academic centre in Africa dedicated to advancing social innovation and entrepreneurship. It was established in partnership with the Bertha Foundation, a family foundation that works with inspiring leaders who are catalysts for social and economic change, as well as human rights activists. The centre is committed to pursuing social impact through teaching, knowledge-building, convening and catalytic projects. The centre has integrated social innovation into the GSB curriculum, established a wide community of practitioners, and awarded more than R7 million in scholarships to students from across Africa.

The centre also works closely with the Raymond Ackerman Academy of Entrepreneurial Development and the MTN Solution Space – both part of the GSB. The Solution Space, an ecosystem for early-stage startups and a research and development platform for corporates, was founded in 2014 using initial capital from the Vice-Chancellor's Strategic Fund. Founding partner MTN provided significant support from 2015.

Master of Philosophy specialising in Inclusive Innovation (MPhil)

This interdisciplinary, research-based degree leads to the development of novel and sustainable solutions for social challenges. It provides a grounding in the fundamentals of inclusive innovation, along with the challenges that face those working on social and environmental issues in Africa today. Innovators are also required to develop a deep understanding of an identified problem of interest via research and field studies with a view to creating practical contributions.

Postgraduate Diploma in Entrepreneurship (PDE)

The Faculty of Commerce's PDE, which was awarded the UCT CHED award for collaborative education practice in 2009, provides graduates

with an intensive, one-year introduction to the theory and practice of entrepreneurship. Designed to enable enterprise start-ups, and to equip students for entry into a broad range of organisational settings, it offers an action learning framework tailored to a rapidly changing and challenging global business environment. Key to the course is the appreciation of competitive advantage, and how creativity and innovation can be harnessed to achieve this.

Philippi Campus

The Bertha Centre and Solution Space were the drivers behind the establishment of the GSB satellite campus in Philippi. A deliberate attempt to deepen the GSB's roots and relevance as an African business school, it is UCT's first community campus. The Philippi campus offers students, alumni, clients and local entrepreneurs in the community a place to meet and engage, and acts as a space between academia and industry where business can advance new ideas by piloting cutting-edge concepts.



Priority 4: Innovating with Digital Technology

Over the past 10 years, online learning and other technologies have played a major role in reshaping teaching and learning globally, and UCT is making sure it is at the frontier of these developments.

Numerous initiatives have positioned UCT to take advantage of the digital revolution and online educational resources – which will transform teaching and learning over the coming decade.

Vula, UCT's official online learning management system, houses websites for academic courses, student societies, study and research groups, faculty and departmental groups, as well as assorted projects and initiatives. Established in 2006, Vula use has increased exponentially in the past 12 years. By the end of 2017 it was reaching over 44 000 active users. Vula has played a significant role in facilitating the shift at UCT towards a more technology-centred approach to learning. The platform has come a long way since its inception, with both staff and students sharing material and learning resources, providing access to lectures which are automatically videoed, receiving feedback and grades, and taking tests and quizzes, among other innovations. The platform has become a central hub for teaching and learning at UCT and is constantly being improved.

The starting point of this revolution in the use of digital learning technologies was the investment in IT infrastructure to support not only the universal use of Vula, but also other online resources. By 2011, provision of wireless access was achieved throughout the campus and in all residences, and high-speed broadband access had been massively expanded.

In 2013, a pilot project was instituted to test the effects of all students having laptops for classroom and laboratory teaching. The results showed that the value for these students went beyond a tool for

Entrepreneurship in action

Flux Entrepreneurship Business Game

UCT is the first African university to host Flux, a global UK-based competition first run by Careers Service in 2013. The business entrepreneurship game aims to teach business planning and the art of pitching ideas to "studentpreneurs" via experiential tackling of human resources, marketing, finance, teamwork and strategy obstacles in a real-world business challenge. Enjoying access to experts for advice, the innovative game offers great networking opportunities, and has proved popular with final-year students across the various faculties. In 2017, the two editions saw 201 participants in 34 teams, and in 2018, within 24 hours of opening for applications, they were fully booked. Close to 600 students had entered by the time the entries closed.

Essentially, student teams are introduced to a "challenge" or "business problem" provided by a participating company. This twiceyearly initiative exposes participants to a rich first-hand experience: working in a diverse team under pressure, using presentation and persuasion skills, problem solving, exercising creativity, working to a specific brief, receiving and acting upon feedback, and being mentored by participating employers.

Entrepreneurship Week

Student Entrepreneurship Week, a DHET national initiative, affirms entrepreneurship as a viable career option for students. In September 2017, UCT Careers Service hosted the UCT Careers Festival, with presentations from student entrepreneurs, an entrepreneurial marketplace and a day-long entrepreneurship boot camp.



learning, also extending their digital literacy, enabling them to adapt more quickly to the rigours of academia, and to catch up to their peers. In 2017, UCT therefore committed to providing a new laptop to every first-year undergraduate student on financial aid to ensure fair and equal access to 24/7 learning resources.

The Lecture Recording Project – which later developed into the Classroom Renewal Project (discussed further in the chapter *Meeting UCT's Growing Needs*) – was rolled out, allowing students to review lectures online via automated lecture capture technology. This has proved of major benefit to all students, especially those who may struggle to understand the lecturer the first time, or have difficulty taking notes at speed. Students are now able to review some, or all, of their lectures and if necessary get assistance to understand particular words or concepts. Students are also able to review lectures when preparing for exams.

There has also been a massive increase in placing educational resources online, including lectures, through flipped classroom and blended learning courses. Some of these are described in the sidebar on pages 146 to 147.

Testing technological innovations

UCT has also tested other technological innovations through various research and development projects located in CILT. UCT took part in the DHET-funded Personal Mobile Devices Project from 2015 to 2017, which tested the use of entry-level tablets by students in specific learning programmes, and which ultimately found laptops to be the most useful.

In early 2017, UCT joined forces with the University of Leeds in a new transcontinental research project to examine how technology affects traditional campus-based degrees in South Africa.

UCT is seeking new and better ways to use technology as part of its open educational resources (OER) offering. CHED is working with Wawasan Open University in Malaysia to produce evidence-based research from 26 countries in South America, sub-Saharan Africa and Southeast Asia on the adoption and impact of OER in the global south.

UCT Massive Open Online Courses

In 2013, UCT established a Massive Open Online Course (MOOC) advisory committee to identify appropriate topics, and monitor and evaluate courses for digital dissemination. With R6 million over three years in support from the Vice-Chancellor's Strategic Fund, 12 UCT MOOCs are now available. The first set of MOOCs was launched in early 2015.

UCT was not only the first African university to offer MOOCs (as far as can be determined), but within 18 months it was named by MOOC aggregator website Class Central as one of the top institutions internationally whose MOOCs have an impact.

The GSB course *Becoming a Changemaker: Introduction to Social Innovation* was ranked in Class Central's top 10 best online courses of 2016. It has had over 15 000 participants from 168 countries to date. The *Changemaker* course is offered in conjunction with the Bertha Centre for Social Innovation and Entrepreneurship (at the GSB) and RLabs, an NGO which teaches vital technological skills to the youth.

Two other UCT MOOCs, *What is a Mind?* and *Medicine and the Arts: Humanising Healthcare*, made Class Central's *Top 50 MOOCs of All Time* list.

MOOCs have influenced how universities perceive the potential of online education delivery, opening up learning opportunities for many who may not otherwise be able to participate. They have also allowed UCT to develop skills that can be deployed for the future development of online education as part of the on-campus experience.

Priority 5: Pursuing Curriculum Reform

Debates around the curriculum at UCT are often characterised by intense contestations about the content of the curriculum and its purpose; whether it is primarily about the formation of a particular graduate identity or about skills for employment; the kinds of curriculum structures or pathways to offer; and different modes of delivery.

In the student-led protests of 2015 and 2016, the curriculum came under the spotlight with the challenge that it needed to be decolonised. This critique is itself contested, has different meaning and substance in different disciplines, and is often a catch-all for other problems with the approach to teaching and learning. In response, many faculties and departments have generated discussions about curriculum change in workshops and faculty assemblies, and by inviting guest speakers.
Some are already testing new approaches.

One of these initiatives driven from the centre is the Curriculum Change Working Group (CCWG), established in 2016 to add stimulus and structure to this debate as a black-led, but inclusive and broadly representative grouping, comprising academics and students traditionally excluded from formal institutional structures and processes of curriculum oversight.

The CCWG has been exploring curriculum change at UCT by engaging with academics and students through facilitated dialogues. These dialogues are asking faculty- and discipline-based academics to interrogate whether their courses are sufficiently inclusive in addressing global and continental problems; whether there are alternative epistemologies, theories, thought leaders, academic authorities and literatures that could be incorporated into curricula to reflect more





UCT's MOOCs:

- Becoming a Changemaker: Introduction to Social Innovation: Learn about or improve the quality of your social innovation knowledge.
- Climate Change Mitigation in Developing Countries: Challenges students to consider how to lift societies out of poverty, while also mitigating greenhouse gas emissions.
- Education for All: Disability, Diversity and Inclusion: Learn how inclusive education can work, especially where resources are limited.
- Extinctions: Past and Present: Exploring how life on Earth has been shaped by five mass extinction events in the distant past.
- Julia Scientific Programming: An introduction to Julia, the high-level, high-performance and dynamic programming language developed specifically for scientific communication, as a first language.
- Medicine and the Arts: Humanising Healthcare: The intersection of the arts, humanities and healthcare.
- Understanding Clinical Research: Behind the Statistics: To ensure terms like "confidence interval" or "p-value" no longer go over your head.



- What is a Mind? Explore the most pertinent scientific and philosophical concepts for understanding our own minds.
- Organ Donation: From Death to Life: Clarifying the often confusing and emotionally stressful complexities of the boundary between life and death.
- Writing Your World: Finding Yourself in the Academic Space: A gateway course aimed at those exploring their options to study at university.
- Innovative Finance: Hacking Finance to Change the World: Learning how the tools of finance, when correctly applied, can enable social and environmental outcomes such as financial inclusion, access to energy, and access to education.
- Large Marine Ecosystems: Assessment and Management: Introducing the concept and practice of ecosystem-based management for large marine ecosystems, a new type of management approach.

diverse histories of thought, and more diverse perspectives on the social and natural worlds. The CCWG also facilitated discussion and debate on: pedagogic and assessment practices which are experienced as exclusionary; flexible learning pathways to ensure student success and retention; and the use of a wide range of linguistic, cultural and experiential resources which students and staff bring to the classroom. In June 2018 the CCWG published a Curriculum Change Framework as a resource for curriculum discussions.

Conclusion

The evolution of teaching and learning has no endpoint, so it is unsurprising that it always feels like work in progress. There is certainly much to be done at UCT in terms of increasing the inclusiveness of classroom spaces and curricula, expanding the use of technology in



UCT DISTINGUISHED TEACHER AWARDS 2008 - 2016:

2008: Vanessa Everson (Languages and Literature), Justin O'Riain (Biological Sciences), Leonard Smith (School of Economics and the Centre for Higher Education Development). **2009:** Associate Professor Gary Marsden (Computer Science), Professor Carrol Clarkson (English Literature). **2010:** Professor Zephne van der Spuy (Obstetrics and Gynaecology), Associate Professor Roland Eastman (Neurology). 2011: Associate Professor Michael Campbell (SA College of Music), Dr Susan Levine (Social Anthropology), Dr Gregory Smith (Chemistry), Timothy Low (Statistics, Commerce, EDU). **2012:** Professor John Higgins (English Language and Literature), Dr Jeremy Wanderer (Philosophy), Zenda Woodman (Molecular and Cellular Biology). 2013: Dr Helen Macdonald (Social

Anthropology), Paul Maughan (College of Accounting), Dr Ian-

Malcolm Rijsdijk (Film and Media Studies), Dr Hedley Twidle (English Language and Literature). 2014: Professor Delawir Kahn (Surgery), Associate Professor James Gain (Computer Science), Dr Linda Ronnie (Graduate School of Business), Dr Spencer Wheaton (Physics). 2015: Dr Joanne Hardman (Education), Associate Professor Jacqui Kew (College of Accounting), Dr Azila Reisenberger (Languages and Literature). Dr Adam West (Biological Sciences). 2016: Dr David Erwin (Mathematics and Applied Mathematics), Associate Professor Ryan Kruger (Finance and Tax), Dr Miguel Lacerda (Statistical Sciences), Dr Janice McMillan (Centre for Innovation in Learning and Teaching), Dr Jonathan Shock (Mathematics and Applied Mathematics),

Associate Professor Jimmy Winfield (College of Accounting).

| 149 |

teaching and learning, promoting evidence-based methods of teaching and assessment among many more lecturing staff. In particular, the challenge of reducing academic exclusion remains.

But as most course and departmental reviews testify, as do the graduate and employer survey, the quality of teaching and of UCT's graduates is very high. And the decade has seen considerable progress in increasing access and success for disadvantaged students. Systems are in place to advance more deliberately the graduate attributes of social consciousness and citizenship, entrepreneurship and innovation. The university is reasonably positioned to exploit the developments in IT and prepare for disruptions that may lie ahead.

The credit goes to those driving the initiatives – the DVCs, registrar's office, deans and deputy deans responsible for undergraduate education and countless heads of departments who steer curriculum design; CHED and the CILT, and the many early explorers of online learning, departments that have been leading change in support of the changing environment like ICTS and the Libraries; and countless individual academics who are willing to take risks and put in the effort of experimenting with new ways of doing teaching and learning.



NATIONAL EXCELLENCE IN TEACHING AND LEARNING AWARDS (2010–2016)

Excellence in teaching and learning is recognised annually through awards granted by a partnership between the Council on Higher Education (CHE) and the Higher Education Learning and Teaching Association of Southern Africa (HELTASA). The HELTASA awards were launched in 2009.

2010

Melissa Steyn (Winner)

Formerly an associate professor in UCT's Department of Sociology, at the time of this award Steyn was director of Intercultural and Diversity Studies at UCT.

2012

(The late) Gary Marsden (Winner)

Professor Marsden, of UCT's Computer Science department, won the award for his innovative teaching and learning philosophy, aligned with his assessment methods.

Bette Davidowitz (Chemistry) and Susan Levine (Medical Anthropology) (Commendations) HELTASA commended both

academics on their coherent and inspiring teaching philosophies, which demonstrated innovation in teaching and learning.

2013

Jenny Case (Winner: Leadership in Excellent Teaching)

Formerly an academic in the Department of Chemical Engineering, Case had special responsibility for academic development. She designed a range of learning activities to support student learning, conceptual quizzes in second year, and publishing videos of lectures online. Case also helped design the Learning and Teaching in Higher Education course.

Mohamed Paleker (Commendation)

Paleker was the course coordinator of Law of Succession and Civil Procedure. His philosophy embodies an ethos of fun in learning, at all times, and use of moot court activities to develop and assess competencies.

2014

Ian-Malcolm Rijsdijk (Winner)

A UCT senior lecturer in the Centre for Film and Media Studies and director of UCT's African Cinema Unit, Rijsdijk teaches in the MA in African Cinema, convenes the screenwriting production stream, supervises third-year graduation short films, and teaches all film courses from first year up.

June Pym (Winner)

Former director of the Education Development Unit (EDU) in UCT's Faculty of Commerce, Pym's methods of how to increase student success and contribute to making first-generation higher education students' learning experiences and environment more meaningful have established her national reputation.

Carolyn McGibbon, Gwamaka Mwalemba and Elsje Scott (Winner: Award for Excellent Team Teaching)

This unique teaching team responded to the global challenge of sustainability by integrating carbon footprint assessment into the curriculum of computer science students studying project management. This unique project also enhances a range of graduate attributes.

Delawir Kahn (Commendation)

Professor Del Kahn was head of the Department of Surgery. Aside from his formal teaching commitments to undergraduate medical students and postgraduate surgical registrars, who vouched for his effective and motivating teaching, he promoted and is patron of the Students' Surgical Society which has stimulated enormous interest in surgical careers among students.

2016

Joanne Hardman (Commendation)

A senior lecturer in educational psychology at UCT's School of Education, Hardman teaches on all postgraduate courses across the school. She was recognised for her commitment to innovation, her humanism, her capacity to foster independence, and her development of students.

CHAPTER FIVE INFRASTRUCTURE TO MEET UCT'S GROWING NEEDS



PHYSICAL INFRASTRUCTURE, SUSTAINABILITY AND SECURITY

In 2008 UCT identified the need for a new size-and-shape plan for the university to strengthen the institution's role in producing future generations of researchers, academics and other professionals. An assessment in 2014 showed a desired increase in postgraduate and international students, and increased enrolments in various faculties, including the Engineering & the Built Environment, Health Sciences and the School of Education. By 2017, UCT had grown its undergraduate headcount by 10.8%, and its postgraduate headcount by 67.3%.

Aside from the pressure this growth placed on teaching facilities, UCT management was also acutely aware of the growing demand for more residence accommodation as a result of the rising number of students from economically disadvantaged communities, and from Cape Town. They require housing that is close to the university and provides easy access to facilities for study. Their financial position also means many stay in residence longer than previously, when students tended to move into accommodation off campus after their first year or two. The need for postgraduate student housing has also increased, necessitating a significant expansion in physical and residence infrastructure.

MAJOR CAPITAL EXPENDITURE PROJECTS

Completed in November 2010 and November 2011 respectively, Masingene and the School of Economics building on middle campus were built for a total of R153 million, managed as a single contract using both DHET grants and UCT funding. The School of Economics building allows the school to unite in one location its many research units, which had been scattered around the university. Masingene serves as a student administration hub that includes the International Academic Programmes Office, Student Records, Student Housing, the Admissions Office and the Exams Office.

New Engineering Building The Faculty of Engineering & the Built Environment was the beneficiary of a new building at a cost of R187 million and funded from a DHET grant, UCT capital appropriations, and funds raised by the EBE faculty. They moved into the building in 2013.

New Snape Building The old building was demolished to make way for a new seven-storey building, which houses the Department of Construction Economics and Management, and includes nine multifunctional lecture theatres, a micro-lab and a satellite of the Library Knowledge Commons. A highly specialised suite was built in



the basement for electron microscopy and very sensitive equipment that needs to be in a vibration-free environment. This building cost R75 million and was opened in 2014. Both it and the New Engineering Building were linked to a commitment to the DHET to increase the numbers of engineers being trained.

New Lecture Theatre In 2016 UCT opened this R62 million, 400-seater venue at the southern end of University Avenue. It is not only the largest venue on campus, but also the first to earn a four-star green rating from the Green Building Council South Africa. The green rating followed months of rigorous planning and implementation to meet stringent standards of energy efficiency, materials, water usage, indoor air quality, transport, ecology and lighting including in the areas that are open to the public during the day as informal learning environments.

Obz Square This new residence complex forms part of UCT's response to the spiralling demand for affordable accommodation on or near campus. Completed in November 2011 at a cost of R415 million, it was fully occupied by the first day of the first semester of 2012. Obz Square boasts 882 bedrooms with internet connectivity, two well-equipped study rooms that can be used for meetings and a state-of-the-art computer laboratory. The preconstructed bathroom "pods" were built by more than 100 artisans in a company in economically hard-hit Atlantis, where UCT invested R32 million.

Buildings purchased, refurbishments and upgraded facilities In 2009 UCT paid R22 million for buildings on Main Road, Mowbray, one of which was refitted at a cost of R13 million to become a new



home for the Department of Information and Communication Technology Services (ICTS). The old ICTS building was taken over by Computer Science, in line with the bid to free up space on upper campus for academic departments. The previous year, the Research Office was relocated from lower campus to 2 Rhodes Avenue, on the corner of Main Road.

Classroom Renewal Project Running from late 2012 to mid-2017, working only during holiday periods, more than 100 classrooms on four UCT campuses were upgraded at a total cost of R102.6 million.

Aside from physical infrastructure and air-conditioning, improvements included installing document cameras and data projectors, upgrading sound systems, reconfiguring teaching walls to provide flexible teaching options, and installing custom-designed motorised lecterns. There were also improvements for students with hearing impairments, with the installation of hearing loops in selected large classrooms to enhance sound levels.

This has enabled the move to routine lecture capture, as explained in chapter 4 on *Teaching and Learning* in the section "Innovating with Digital Technology".

Protea Hotels Two properties owned by UCT are subjects of separate partnerships with Protea Hotels, part of Marriott International, as income-generating efforts.

Mowbray UCT is a part-owner of property on which the Protea Mowbray Hotel and Wild Fig restaurant stand; the rest of the land is subject to a long-term lease. This arrangement had previously generated minimal profit for UCT, so in 2015 the university tendered the running of the facility to Protea Hotels. UCT invested some R25 million to upgrade the hotel, and the partnership is already proving



highly profitable. Although the profits have not exceeded the total investment to date, they remain aligned to the business plan motivating for the investment.

Breakwater Lodge UCT funded a R50 million refurbishment of its 222-room hotel located on the premises of the Graduate School of Business, and the hotel reopened for business at the end of 2011. This hotel stands on property that is subject to a long-term lease.

WORK IN PROGRESS

Graduate School of Business Academic Conference Centre This is set for completion at the end of 2018 and is expected to be fully operational in the first quarter of 2019. This R130 million, worldclass, four-storey facility at the Breakwater Campus will offer 200m² dedicated to academic engagement on issues pertinent to business in South Africa and the African continent. It will also generate income by being leased to external conference organisers. Naming rights may also be on offer.

Neurosciences Institute The J-Block at Groote Schuur Hospital is currently being refurbished. This comprehensive facility will bring together all the relevant disciplines to address the major causes of neurological and mental illness. With its location alongside the Cape Universities Body Imaging Consortium, investigators and patients will have ready access to the state-of-the-art imaging including high-field magnetic resonance imaging and positron emission tomography, which came at a combined cost of about R55 million. (See more on this in the chapter on *Research*, section *Interdisciplinary Institutes*.)

Over the decade, Properties & Services has managed a wide range of critical issues and projects. While some involved physical facilities and infrastructure, others had to do with the management of relationships with staff and organisations outside the university. Examples of these projects are featured in the highlights section that is featured at the end of the chapter.

UCT'S DRIVE TO CUT WATER CONSUMPTION BY HALF

UCT is one of the city's major consumers of municipal water. It has made good progress in ensuring the campus community is waterwise and that its current water usage is drastically reduced.

In mid-2017, the UCT executive established a Water Task Team. Launched early in 2018, its purpose is to drive the university's response to the drought in the Western Cape. A major awareness campaign, aimed at reducing staff and students' water consumption by 50%, was rolled out. Driven by the Water Task Team, some of the crucial interventions included:

- Plugging leaks in the upper campus dam. This water is now used to irrigate the sports fields.
- The installation of three water tanks, with a combined capacity of 30 000 litres, installed to collect seepage water from the canal that runs behind Welgelegen. This water is now used to irrigate the cricket oval and soccer fields.

SUSTAINABILITY - GREEN STAR RATINGS

In 2012 UCT signed the International Sustainable Campus Network / Global Universities Leaders Forum (ISCN-GULF) Sustainable Campus Charter, which commits the institution to an environmental policy that integrates sustainability in education, research and outreach, strategic planning and operations. The university has committed itself to reducing its carbon footprint, addressing other environmental sustainability issues and to reporting on this at regular intervals.

- Surveying for possible borehole sites.
- The installation of water-saving aerators on taps in Obz Square, Rochester and the New Engineering Building.
- The installation of 238 new water-efficient washing machines, which use 100 litres less water per wash, in residences.
- The installation of water-saving shower roses in some residences, and the distribution of 7 000 buckets to students for capturing grey water for use in flushing toilets.
- The installation of 13 smart digital water meters to provide reliable information on average water consumption across the campus, and help identify possible leaks.
- A wide variety of tools and resources have also been made available for free download, including email signatures, decals, flyers, posters and social media coverage, to help raise awareness about the need for water saving.

The Green Star rating is a tool developed by the Green Building Council of South Africa, based on the Australian Green Building Council tools, to provide the property industry with an objective measurement for green buildings. It also recognises and rewards environmental leadership.

While the New Lecture Theatre has a 4 green-star rating, UCT has also incorporated "green" features into the Obz Square residence, the new School of Economics and Masingene buildings on middle campus. The Green Star ratings, particularly for educational institutions, had not been formulated at the time that these buildings were designed.

Among other steps towards sustainability, UCT has installed electricity meters in many buildings as a first step to monitoring energy use, and has completed several reports on the university's carbon footprint, published in the *SA Journal of Energy*. UCT has also retrofitted low-energy bulbs, which now account for 85% of lighting in campus buildings.

There are numerous other sustainability interventions (including many run by students, such as the Green Campus Initiative), carpooling, replacement of Jammie Shuttles with more efficient vehicles and making routes more efficient, replacement of inefficient air conditioner chillers, and reducing water consumption (see page 162). There are also some areas in which UCT has dropped the ball and unfortunately gone backwards (such as recycling waste). The details are in the ISCN-GULF reports.

CRIME AND SECURITY

UCT has invested millions of rands in campus security to provide a safer environment for the university community. This is a particular

challenge given that most of the campus is completely open to the public, with limited access control, and is located in a city with high rates of crime. Moreover, three-quarters of students do not live on campus but in surrounding suburbs, and UCT has an obligation to support the government's and city's security initiatives in those areas too.

Students and staff have experienced various types of interpersonal crime over the past decade, with available data showing that they are most at risk of being robbed on streets and in open spaces off campus. The South African Police Service (SAPS) data for Mowbray and Rondebosch policing areas has shown an 80% increase in reported robberies (common robbery and robbery with aggravating circumstances) between 2011/12 and 2015/16, from 207 to 373 cases.

Robberies and attempted robberies reported to UCT's Campus Protection Services (CPS), mostly experienced by students and staff, increased since 2011, from 30 reported cases to 96 in 2017. Most reported robbery incidents have taken place off-campus, with an average



of eight robberies on campus per year reported to CPS between 2011 and 2017.

The majority of incidents have taken place after dark, in the early hours of the morning, and in places where there are few people around. Incidents frequently involve the theft of laptops, clothing and student cards.



Source: CPS

In 2010, UCT's efforts to forge a new social contract with local businesses, property owners and residents resulted in the establishment of the Groote Schuur City Improvement District (GSCID). As the major property owner in GSCID, the university contributed R4.5 million towards its establishment, aimed at dealing with neighbourhood crime faced by students, residents and businesses in the area. GSCID security personnel, CPS and the police undertake extensive patrolling and other visible policing functions in and around UCT campuses.

In 2011 UCT established the Safety and Violence Initiative (SaVI) – see chapter 2 – which does vital work not only at UCT, but also



in surrounding communities and countrywide. On campus, SaVI has introduced the Safe-UP UCT smartphone app, which allows anyone on campus to quickly and easily submit reports about issues such as safety concerns in buildings, problems with street lighting, or overgrown areas that make them feel unsafe.

On campus, CPS operates 24 hours a day, seven days a week, with 280 campus protection officers who operate from six centres around the university, as well as in six CPS patrol vehicles. Between CPS and GSCID, seven mobile kiosks are available for students, staff and visitors to report crimes or seek assistance. In addition, there is continuous monitoring of 300 video surveillance cameras. Emergency bollards are located from upper to lower campus on UCT's safe walks. Any person who runs into trouble on this route can activate the bollards, which are linked to the CPS surveillance room.

In 2014 UCT introduced a Rapid Deployment Unit, whose members are fully equipped and trained in unarmed combat. This unit specifically patrols any crime hotspots as well as the recommended campus foot routes.

While the university's efforts have ensured that the campuses have a relatively low crime rate compared with the rest of Cape Town, safety remains a concern.

LIBRARIES AND INFORMATION SYSTEMS

It is fortunate that the dramatic growth in student numbers and researchers has coincided with a revolution in digital media, e-journals and online resources such that the libraries could be fundamentally transformed in how space is used, making much more study space available to students. The Libraries have changed in response to increased use of electronic resources, the slowdown in print journal growth, the increased emphasis on support for postgraduates, the increased need for undergraduates to study collaboratively, and the forefronting of the university's distinctive African and manuscript collections, both print and digital. The physical restructuring and organisational changes align with current best international practice in large academic libraries, and enhance the Libraries' ability to support research.

The Research Commons, reserved for postgraduates and faculty staff, opened in 2009, thanks to a partnership with the Carnegie Corporation of New York. Situated in a secluded part of the Chancellor Oppenheimer Library, it offers a peaceful atmosphere where researchers can access electronic resources, work on their articles or theses, relax in a comfortable lounge area, and informally interact with colleagues. Experienced library staff are available to assist with users' information needs, and to arrange consultations with subject specialists as necessary.

For the first time, in 2011, the Libraries brought together all Special Collections, showcasing the university's unique research collections and consolidated access to the Libraries' expertise in these collections. The centrepiece of this integration was the 2012 restoration of the Jagger Library Reading Room.

In late 2015, the Libraries launched their Open Scholarship webpage, which supports the UCT research community for services including open access publishing, theses and dissertations, open educational resources,

open access publishing fund and copyright guidelines. (See *Research* chapter section "Making research results accessible to the world")

The foregrounding of the university's unique African and manuscript collections has been a strategic priority since 2012. In August 2015, the Digital Archive website was launched to celebrate the 14 unique local collections (with more than 14 000 rare digital objects). This cross-disciplinary project brought together researchers from across the institution to help preserve South African heritage and make it discoverable and accessible for research and teaching.

Other library projects that have been completed during the past decade include:

- increasing the Special Collections manuscript storage space with a state-of-the-art archive facility
- installation of mobile shelving in the main library
- major upgrades of library staff's working facilities
- researcher engagement space with a data visualisation wall
- five 24/7 study facilities in the main and some branch libraries, including custom-designed space for patrons with disabilities
- Library Learning Lounge to facilitate active learning in collaborative spaces.





INFORMATION AND COMMUNICATION TECHNOLOGY SERVICES (ICTS)

Any university that intends to stay at the forefront of research, teaching, access to knowledge and preparation of students for the changing world of the future needs to devote significant resources to information technology. UCT's ICTS department provides the expertise to set up, install, monitor and maintain the university's extensive information infrastructure and services.

ICTS also provides support to over 40 of the 84 computer labs and general-use spaces across UCT campuses. Many academic departments run their own specialist computer labs.

One of the most frequent complaints heard from academic staff in 2008 related to the poor connectivity and slow internet speed. Within a few years these problems were solved and the ICTS department has delivered a remarkable performance and led the way with many innovations since then.

 The installation of additional WiFi access points across campus in 2011 allowed UCT staff and students to wirelessly access the UCT network and internet from most campus buildings and residences and even outdoor spaces. UCT implemented the Eduroam network which allows staff and students to log on to their home university from any other university worldwide that is subscribed to Eduroam.

- The reduction of telephone costs by privatising 1 300 phone lines in 2011, for which UCT would have had to pay Telkom R10.2 million per year in rental fees.
- The construction of a R6.1 million, self-sufficient, state-of-the-art data centre, completed in 2015, to provide UCT with additional cloud and high-performance computing services, including the new African Research Cloud.
- The implementation of a new virtual private network to allow authenticated access to the UCT network from off campus.
- In 2017, the Iziko Planetarium in Cape Town was refitted as a Digital Dome to allow researchers to view their big data using state-of-the-art equipment. The project, which was run by ICTS, was a partnership between UCT, Iziko Museums, the University of the Western Cape, Cape Peninsula University of Technology, Department of Arts and Culture, Department of Science and Technology, National Research Foundation and the National Lotteries Commission.
- Innovation was enhanced with the implementation of the data visualisation wall, a collaboration between the Libraries, ICTS, eResearch and the Research Office. ICTS established a dedicated eResearch Centre to assist researchers with data management and storage, high-performance computing and collaboration, a visualisation service and eResearch tools and support.
- The Classroom Support Services unit moved to ICTS in 2012. The team handles all classroom support queries and was responsible for updating 101 classrooms.

ICTS Statistics



310 400

The number of metres of cabling necessary for installations for both operational installs and projects for 2017.



2.18 million

The number of jobs from 130 researchers processing their research data via the High Performance Computing service, which was launched in 2010.



3 600

The number of wireless access points across campus, making UCT the largest WiFi network in Africa.



3 730 THE NUMBER OF PC LAB SEATS ON UCT CAMPUSES.

138 million

The number of viruses and spam messages blocked by UCT's ICTS systems in 2016 – representing more than 378 000 attacks every day.

R40 million

The cost saving thanks to the three-year Voice Over Internet Protocol deployment.

Current focus for ICTS is cybersecurity

Higher education institutions are known for producing and owning large research data repositories of confidential information. This marks them as sought-after targets for hackers. In the past few years, cybersecurity has been formally recognised as a critical risk area by UCT's Risk Management Committee, and ICTS has established a team to address this risk. The Information and Cybersecurity Services team is responsible for university-wide information and cybersecurity incident response and readiness.

In July 2017, UCT hosted the Cybersecurity Symposium Africa, which brought together 130 members of the security sector to share knowledge and ideas, and identify possible collaborations.

Conclusion

UCT's physical infrastructure growth, and the development of its library, information and computing services, has positioned the university to support the growth of the teaching and research enterprise. It also positions UCT very competitively to attract researchers whose work makes heavy demands on high-performance computing and data storage.

In addressing security and cybersecurity needs on campus, UCT is setting a standard that the rest of the country can learn from.



INFRASTRUCTURE MILESTONES

2009

- The commencement of the relocation of non-core functions off upper campus, including ICTS and the building of a new gymnasium and beach volleyball court and the refurbishment of the swimming pool for residence students on lower campus.
- The increase to capacity of the upper and lower dams for water conservation.

2010

 The preparation for the 2010
 Soccer World Cup, with the use of student accommodation for overseas visitors.

- The establishment of GSCID to increase student and staff safety.
- The discovery and acknowledgement of a slave graveyard on middle campus and commencement of the process to honour those buried there, including consultation with people whose ancestors were slaves in the area.
- The renovation of the PD Hahn building after a fire destroyed part of the seventh floor.
- Completion of Masingeni
 Student Administration building (middle campus).

- The reconfiguration and refurbishment of various buildings and facilities, including Little Theatre safety projects in the Hiddingh campus, and the Irma Stern Museum security upgrade.
- Completion of Obz Square residence.

2012

- The reconfiguration and refurbishment of additional buildings and facilities, including installation of new Rugby Club floodlights.
- The adoption of Green Star ratings for all new campus buildings.
- The construction of the new Little Theatre Workshop on Hiddingh campus.
- Opening of the New Economics Building (middle campus).

2013

- The reconfiguration of the Jammie South stop.
- The upgrade of the Rosedale site, adjacent to Hiddingh campus, to accommodate the new Jammie bus stop.
- The rollout of the MySpace project across all campuses, turning underused space into student social study areas by providing seating, worktops and WiFi.
- Opening of the New Engineering Building.



- Completion of the New Snape Building on upper campus for R75 million.
- The upgrade of the Rugby Club change-room facilities, funded by a private donation of R10 million.
- The upgrade of the Centlivres Building for the School of Architecture & Planning, funded by a DHET allocation of R52 million.
- The rollout of reactive maintenance to buildings for R33 million.
- The completion and submission to DHET of the Integrated Development Framework spatial development plan to 2030.

2015

 The implementation of the Integrated Transport Plan, which revised bus routing around Madiba Circle, resulting in 20% saving in Jammie bus running costs.

- The addition of an extra floor in a R21.15 million upgrade to Palm Court (later renamed Harold Cressy) residence, bought by UCT for R16.38 million in 2012 for the housing of 58 senior and postgraduate students.
- The rollout of maintenance to buildings for R54 million.
- The establishment of a new parking area adjacent to Educare, adding 150 bays on upper campus at a cost of R6.4 million.

2016

- The insourcing of 1 300 new staff members who work in gardening, cleaning, catering, transport and security.
- The completion and opening of the highly anticipated 400-seater New Lecture Theatre, built at a total cost of R62 million, on upper campus.

- The introduction of the new Jammie fleet of 26 buses with increased efficiency, reducing UCT's carbon footprint.
- The acquisition of planning feasibility funding from Atlantic
 Philanthropies for the Nelson
 Mandela Memorial and UCT
 School of Leadership project.
- The successful planning approval for the new Jammie North stop and landscaped precinct at a cost of R20 million.

2018

 Agreement secured from the Department of Environmental Affairs and National Parks Board for the use of land to build the Nelson Mandela School of Governance and Centre for Memory.

- The refurbishment of the Steve Biko building for R20 million.
- The design development of the new School of Education and d-school on lower campus through joint funding from DHET and Hasso Plattner, to the value of R113 million.
- The approval of funding from the Services Skills Education Training Authority for the new African Research Institute for Skin Care building on the Health Sciences campus, at a cost of R73 million.



CHAPTER SIX STUDENT LIFE, LEADERSHIP AND ACTIVISM





An important part of UCT's mission is to pass on to students the tools they need to bring about the changes they want to see in the world they are entering. This involves not only the academic sphere, but also the social interactions involved in residence life, student societies, volunteerism, sports, and exercising one's voice on issues that can make a difference, and – in all of these spheres – providing opportunities to develop leadership skills.

This chapter reviews the important role of student life, leadership and activism at UCT in the past decade. It addresses five areas: student governance; leadership development; sports; residences; and the tumultuous protests from 2015 to 2017.

STUDENT LEADERSHIP AND COOPERATIVE GOVERNANCE

The Student Representative Council (SRC) and the more than 100 other student societies at UCT are vital in creating an environment that allows everyone's talents to thrive, as well as offering rich leadership opportunities.

Because students are on campus for a few years at most, and generally hold office for one-year terms, the influence of student leadership is by nature short-term and constantly changing. Student life involves constant questioning, and takes place during a transitionary period when students are free of the discipline of their home environment, but not yet involved in the different disciplines of the working environment. Therefore, in many ways, students are finding their own way into their future.

Leadership roles in the student body at UCT include serving as members of the SRC, Student Assembly, Student Faculty Councils for


undergraduate and postgraduate students, house committees, student sports clubs, student societies, and as student orientation leaders or student mentors. Student Governance and Leadership, a division in UCT's Student Affairs Department, supports the SRC, the Student Assembly and the Student Faculty Councils. The content of studentcentred programmes changes annually, but it generally includes SRC and Student Faculty Council elections, the SRC's strategic planning programme, the Student Leadership Awards programme and leadership orientation and training workshops.

The SRC is the highest decision-making student body at UCT, representing students on important university committees across the campus, and running various programmes for student development. The SRC advocates for needs expressed by students, both individually and in students' collective interests. Some examples of successful campaigns over the years have been:

- the introduction of UCT's first gender-neutral toilet facilities on campus in 2014
- creating ongoing awareness of health issues, such as the importance of testing and counselling for HIV/AIDS and tuberculosis
- monitoring of UCT services such as the Jammie Shuttle and access to parking
- a successful campaign to have the libraries open 24/7 study spaces, and to have shuttles running throughout the night from the libraries
- consulting and lobbying on the annual fee increases.

Members appointed by SRC and Student Faculty Councils also sit on almost all committees dealing with academic issues, such as admissions policy, and teaching and learning, Senate and Council and their executive committees, and more recently, the various transformation task teams. SRC members were influential in contributing towards the development, among other things, of the First-Year Experience (FYE) programme, launched in 2012 to help new students make the transition to university life. (This is discussed in more detail in the *Teaching and Learning* chapter on page 126.)

In representing individual students' interests, SRC members or nominees actively participate in student disciplinary procedures, and student leaders have mediated with the university on behalf of students who have faced exclusion on financial or academic grounds. In late 2016, a Rapid Response Task Team (RRTT) was established to identify problems facing students which might lead to protests, and to intervene before the problems escalated. SRC members and other student leaders were critical to the success of this initiative, spending hundreds of hours working in, and for, the RRTT. They also worked with various internal stakeholders, including the Undergraduate Financial Aid Appeals Committee, to help make the financial appeals process more transparent and responsive.

Over the past decade, various SRCs took on challenging and ambitious projects with support from the Vice-Chancellor's Discretionary Fund. For instance, in 2010 they launched and hosted an African Student Leaders Summit, which attracted delegates from 23 different African institutions and 11 different countries. In 2013 they worked with the Vice-Chancellor's Office to organise the university-wide campaign and march against gender-based violence, mobilising a crowd of several thousand students, staff members and friends of UCT.

SRC Presidents 2009 to 2017 2008-2009: Chris Ryall 2009-2010: Sizwe Mpofu-Walsh 2010-2011: Amanda Ngwenya 2011-2012: Insaaf Isaacs 2012-2013: Lorne Hallendorff 2013-2014: Nommangaliso Gondwe 2014-2015: Ramabina Mahapa 2015-mid-2017: Rorisang Moseli Five months of 2017: Seipati Tshabalala 2017-March 2018: Karabo Khakhau

During the past decade, the various SRCs embarked on different projects that reflected the goals they were seeking to achieve. The Vice-Chancellor's Office assisted with projects such as the instances described below.

In 2013, the SRC decided that a Charter on Student Rights and Responsibilities should be drafted by the SRCs of the 23 higher education institutions in South Africa. A planning conference of SRC leaders from around the country was organised in September 2013. In September 2014, the UCT SRC hosted approximately 15 SRCs from around South Africa, as well as the South African Union of Students, and over the course of three days the Student Rights and Responsibilities Charter was drafted.

The 2016 SRC embarked on a fundraising campaign to assist students facing financial exclusion. This involved a telethon campaign to solicit donations from alumni (supported by the Development and Alumni Department), approaches to corporates and funds raised through the hiring out of Jameson plaza. The Vice-Chancellor assisted this campaign by raising a R2 million donation from Old Mutual and a R300 000 donation from ABSA, and making a personal donation of R150 000. This resulted in the SRC allocating an unprecedented total of R2 727 000 to students as part of the 2017 SRC Assistance Fund.

STUDENT LEADERSHIP OUTSIDE THE REALM OF UNIVERSITY GOVERNANCE

There are more than 100 student societies on campus and over 40 sports clubs. Aside from providing opportunities to have fun, socialise and develop students' particular talents, clubs and societies offer additional opportunities for students to exercise their leadership skills, as well as gaining valuable practical organisational experience.



A particular group of societies that speak to the mission of the university to develop students' understanding of the social and political world, and in particular to understand inequality and social justice issues, are the student development agencies. These include the Students' Health and Welfare Centres Organisation (SHAWCO), RAG (Remember And Give), the Green Campus Initiative (whose mission is to create institutional change towards a greener and more sustainable campus), and the UCT student-run non-profit organisation Ubunye (which aims to provide educational advancement, life-skills development, mentorship and guidance to motivated high-school learners in Cape Town's townships). *Sax Appeal* – a student collective responsible for the editorial content and production of the annual RAG magazine sold to raise funds for RAG – and *Varsity Newspaper*, the student-run hardcopy newspaper and online news and comment

platform, provide valuable training grounds for budding media professionals.

The development agencies are also an important part of the experience of international students, giving them an insight into the society beyond the bounds of the university, and the nature of inequality in South Africa. For instance, since 2010, SHAWCO's Service Learning Programmes have attracted more than 1 000 students from partner institutions in the US.

Numerous sports clubs also undertake development activities, offering coaching or new sporting skills to school children in disadvantaged communities.

In 2015, student leaders and the Department of Student Affairs organised a conference to explore how students were engaged in social responsiveness initiatives, examining how students navigate social, political and other issues of the day, and – as one organiser said – providing attendees with a "social toolkit of practical skills for navigating the dynamics of community engagement in South Africa".

UCT students can often advance the university's own goals in creative ways. For instance, members of the Green Campus Initiative (GCI) initiated the car-pooling policy whereby the university set aside special parking areas on upper campus for car-pool vehicles. The GCI has also run campaigns to promote recycling of waste and create awareness of the water shortage in Cape Town.

The LGBTI student organisation, Rainbow UCT, continues to provide an important platform for supporting students who are exploring their sexual identity and raising awareness of sexual diversity on campus.

UCT PLUS

When students take on extra responsibility within the university, the UCT Plus programme, introduced in 2015, ensures that their contributions are officially recognised. This programme salutes and incentivises the extracurricular leadership work of students as well as their work in communities off campus. (See page 57 in Chapter 2 *UCT's Impact*).

SPORTS DEVELOPMENTS

Over 9 000 students and staff are members of the 40-plus sports clubs at UCT. Every club welcomes new members, from novices to more experienced athletes, and is equipped to deal with the needs of each individual – including, in most clubs, offering the services of top-level coaches. Every year UCT honours the sportspeople and teams that have excelled nationally in any of UCT's sporting codes.



VARSITY SPORTS

The FNB UCT Ikey Tigers rugby side has been a firm fixture in the FNB Varsity Cup since the tournament's inception in 2008. The top eight rugby-playing South African varsities go head to head. The Varsity Cup rules have been progressively reducing the number of non-student players in the team. Currently individuals who are not registered students are not permitted to participate in the Varsity Cup rugby.

The Ikeys in their traditional blue and white stripes have set the tournament alight on many occasions with their exciting brand of



running rugby, resulting in frequent semi-final and final appearances. They have won the competition twice – in 2011, and famously in 2014 in Potchefstroom, with an unbelievable, never-say-die comeback, turning a 15–33 deficit in the 74th minute into a last-gasp win.

In March 2011, alumnus Neville Isdell, former chairperson and CEO of the Coca-Cola company, donated US\$1 million to the rugby club as a first step towards improving the facilities. When he announced the donation, Isdell recalled his own rugby-playing days at UCT, and said the establishment of the Varsity Cup had upped the stakes for university sport.

Stimulated by the success of Varsity Cup, Varsity Sports was launched, creating well sponsored, televised leagues in other sporting

codes. The competitions are owned and overseen by the University Sports Company (USC), which was started in 2012 with UCT as a founder member. USC has contracted the Advent Sport and Entertainment Media Varsity Sports company to run the Varsity Sports (VS) tournaments. VS was initially launched with two sports disciplines: rugby sevens and beach volleyball. Since its inception VS has created vibrant competitive tournaments, resulting in unprecedented media exposure for student athletes and the university. UCT competes in rugby sevens, cricket, athletics and women's hockey.

THE IMPORTANT ROLE OF RESIDENCES IN UCT COMMUNITY LIFE

Residences help students make the transition to university life. They provide not only accommodation and catering facilities, but also student learning centres, social and sporting activities, and life-skills and peer-tutoring programmes.

UCT considers each residence to be a community that allows a range of diverse students from different backgrounds to forge friendships that can last a lifetime. Every effort is made to ensure that students' residence-life experience will foster their holistic development and contribute towards their academic progress.

Unfortunately, only about 25% of UCT students can be accommodated in university residences, although about 40% of first-year undergraduates will have the residence experience for at least one year. The rapid growth in student numbers at UCT and the changing demographics have combined to increase demand for residence accommodation. More students now come from economically disadvantaged communities and require housing on, or near, campus,



not only for ease of access to the university but also for the academic and social opportunities that are available through residences. On-campus housing shortages have been reported at many universities across South Africa and were the main reason for the unlawful and violent "Shackville" protests at the start of the academic year in 2016. (See later in this chapter.)

In 2008, UCT's residence capacity offered 5 331 beds. By 2018, that number had increased to 6 751, and the university also made available 376 beds that had been leased off campus, an increase of 34%.

THE RESURGENCE OF STUDENT ACTIVISM

Over many decades UCT has always been proud to be associated with students who have engaged with the broader social, political and economic challenges of the country and taken a stand against injustice – whether the segregationist policies and human rights abuses of the apartheid government, or the university management's failure to uphold its commitments to social justice – as happened in the Mafeje affair in 1968.

While such activity quietened down during the early years of democracy after 1994, almost to the point of apathy and disinterest in the abuses of power and corruption that were growing in the public spheres, in March 2015 student protests erupted at UCT and on campuses across the country. There are many theories as to why the protest movement exploded when it did, and with such speed and widespread support – space does not permit their analysis here. Suffice to say that the protests are likely to have resulted from a conflagration of national political tensions between and within parties, the spillage onto campus of service delivery protests in communities from which an increasing number of the students come, the growth in the number of black students to a critical mass that emboldened their protest against the marginalisation they had been experiencing over many decades,





and the chronic underfunding of universities that had resulted in fee increases that could no longer be afforded by the majority of students which was the main fuel to the protests. The frustrations of the labour movement especially around labour brokering and outsourcing, and the internal divisions in COSATU, added a critical layer of labour resistance and promoted an alliance between students and outsourced workers. Each campus also had its local issues which were overlaid on the national driving factors.

In March 2015, the protest against the presence of the statue of Cecil John Rhodes in a prime position on the upper campus led to an occupation of the Mafeje Room in the Bremner building for a month, while discussions and consultations were held with various UCT constituencies. These culminated with a Senate meeting which voted almost unanimously to remove the statue, as did the subsequent meeting of Council. The statue was removed amid much celebration on 9 April 2015.

The debate around the Rhodes statue put the issue of transforming the institutional culture on centre stage at UCT. Perhaps to the surprise of many, the debate produced a high degree of consensus about the need to act more quickly and decisively in respect of transformation generally, and brought home to people that transformation affects everyone and is everyone's responsibility. Staff and students were challenged to think more deeply about what institutional racism means, and to recognise how differently UCT is experienced by many black students and staff in comparison to their white counterparts. This period also saw debates and discussions held on campus about decolonisation, intersectionality and related subjects of power relations and inclusivity. Aligned with the #RhodesMustFall (#RMF) movement, other groups organised around these issues, including the Black Academic Caucus, Patriarchy Must Fall, the UCT Left Students Forum, LGBTQIA lobbies, the Trans Collective, and UCT Survivors.

The #RMF protests, as they were referred to, became a much wider national movement which gathered momentum on campuses throughout South Africa particularly on the historically white campuses. On the historically English campuses, the key issues have been around transformation, coupled with the feeling of alienation experienced by many black students, as well as what has come to be called decolonisation: the sense that the campuses still have a white, Eurocentric culture and whose curricula reproduce colonial methodologies and practices that may not be relevant in South African universities today. On several Afrikaans-medium campuses, the focus was on language policy. All the Afrikaans campuses changed their policies over the next year. At many campuses, symbols, building names, statues and the absence of balanced representation of different heritages were challenged and changes made.

At UCT, during 2015, a number of task teams were established by Council with strong student representation, to audit and make recommendations on the naming of buildings, on the symbols and artworks, on student mental health, and on sexual assault. Work was started on the next five-year employment equity plan, faculties conducted assemblies to surface the student grievances, the academic development programmes were subjected to rethinking to look for ways of reducing the stigma that students in these programmes were feeling; curriculum discussions about decolonisation were initiated in all faculties. The Curriculum Change Working Group was established (see *Teaching and Learning* chapter page 145). Academic promotion criteria and structures were reviewed, and several faculties made changes, in particular adding more diversity to the committees by removing the requirement that only full professors could be members of the faculty promotion committees.





The results of these discussions and interventions have been written formally into UCT's Strategic Planning Framework 2016–2020. The pervasive theme of the framework is to create a new, inclusive identity for UCT that mirrors the diverse cultures, values, heritage and epistemologies of all who study and work on campus, rather than expecting everyone to fit into the historically dominant culture of UCT.

Ultimately, the #RMF protests were positive in shifting the thinking of the university about transformation. It is noteworthy that throughout the #RMF protests until late October 2015, the protests were peaceful, and not a single class was disrupted or suspended.

However, in October, the national #FeesMustFall (#FMF) protest movement adopted a different strategy, with some students becoming increasingly militant, disruptive and unlawful, encroaching on the rights of students and staff who did not support the shutdown tactics. This was countered by university managements with interdicts, suspensions, arrests, the use of private security, and police action in the ensuing weeks and months. On 19 October 2015, students protesting against a fee hike at the University of the Witwatersrand tried to shut down that university and called for a national shutdown protest to force the government to provide funding so that fees would not increase. A day later, protesting UCT students erected barriers at some UCT entrances, limiting access to campus and preventing exams from being written. A decision was made to close the university for several days – ultimately this stretched to two weeks. Protesters' demands included a 0% fee increase, and a call for UCT's outsourced service staff to be insourced. In fact UCT had already approved fee increases for 2016 with the support of the SRC based on a commitment that poorer students would not face any fee increase. The UCT protestors came out in solidarity with the #FMF nationwide movement.



On 23 October Dr Price joined other vice-chancellors and SRC leaders to meet with the State President, Jacob Zuma, who later that day announced there would be no fee increases at South African universities for 2016 and that the government would provide grants directly to universities to replace a percentage of the fees lost.

The following day UCT Council met to rescind UCT's fee increase for 2016 and to accept the zero increase with replacement funding from government. Council also agreed in principle to insourcing, but requested an analysis of costs before making a decision. This was done and the decision to insource was taken later that week.

On 28 October, UCT management and the NEHAWU Joint Shop Stewards Council, representing the outsourced workers, signed a historic agreement that UCT would employ previously outsourced



workers in those service areas. Eight months later, on 1 July 2016, UCT officially welcomed approximately 1 300 insourced employees who became part of the UCT community.

Exams took place without incident in November 2015, a week later than originally scheduled, with some 5 900 students opting for deferred exams in January. These exams also took place without any disruption.

In February 2016, protestors staged occupations and disruptions about the handling of accommodation for students who could not be accommodated at UCT immediately on their arrival. The protests escalated over the next two weeks culminating in the socalled "Shackville" protest which included the burning of portraits and artworks, and arson attacks on vehicles and the Vice-Chancellor's office. In September that year, national protests erupted again around the issue of fees which had still not been resolved at a national policy level, while on different campuses specific issues became rallying points for escalation. At UCT the key issue was the demand that students who had been expelled or rusticated following the Shackville protests should be reinstated. These protests ultimately resulted in four weeks of disruption of the academic activities, with considerable violence, the use of private security and public order police, until an agreement was mediated just prior to the start of exams on 6 November. Some courses required students to return in January 2017 for catch up work and deferred exams.

One of the outcomes of the student protests of 2016 – and a strategy to break the deadlock that had formed between protesters and the university – was the establishment of an Institutional Reconciliation and Transformation Commission (IRTC) at UCT.

One of the goals outlined by the IRTC is to make recommendations

on amnesties and disciplinary actions with respect to students involved in unlawful protests, while the second focus of the IRTC would be on "institutional culture, transformation, decolonisation, discrimination, identity, disability and any other matters that the university community has raised over the past 18 months, or may wish to raise in the future".

There was calm for most of the year in 2017. However, tensions increased again when the UCT Finance Committee indicated that fees were likely to increase by 8% and the country was still awaiting the release by the president of the judicial commission report into free education. The Minister of Higher Education and Training had also not indicated how 2018 fee increases would be dealt with. Two weeks of disruptive protest by a small group of protestors in late October were sufficiently threatening to the security of exams, in spite of private security and public order police, that UCT management took the extraordinary step of arranging an exam venue in marquees on the upper campus rugby field. The tents were surrounded by a security cordoned area in order to restrict potential protesters from disturbing those writing. The exam programme proceeded without disruption.

Conclusion

UCT takes a holistic view of student development, seeking to graduate individuals who have not only achieved at an academic level, but have developed their multiple talents, have been given opportunities to develop leadership skills and have an enhanced commitment to active citizenship and addressing injustice. The extramural life – in residence, societies, sports, governance structures and activism, are all geared to promoting this holistic development.



CHAPTER SEVEN TRANSFORMATION



INTRODUCTION

The past decade has been one of the most dramatic and far-reaching in terms of transformation. Transformation pervades every aspect of the university's activities and is, in fact, covered in all the other chapters – addressing teaching, research, impact, even finances (financial aid) and global presence. However, it is important to offer an overview of transformation consolidated in this chapter: It highlights how the university has changed in 10 years, and also the areas where progress has been slow and where most effort is required going forward.

UCT conceptualises the various dimensions of transformation in order to make it manageable, ensure focus and maintain the ability to monitor progress. This also forms the structure of the chapter, namely:

- Governance and changes to governance in regard to transformation
- Student demographic profile
- Student performance, success and attrition
- Staff demography recruitment
- Addressing inequality in the workplace through insourcing
- Staff profile across levels of seniority, staff development and promotion
- Institutional culture and decoloniality
- A cluster of services addressing specific areas of exclusion/inclusion and respect for equal dignity: disability, gender and sexuality
- The knowledge project curriculum development, research focus, foregrounding African voices, identification and links with the rest of the continent
- Environmental sustainability of the campus.

As indicated above, this chapter will only give examples from each area to illustrate the themes.

GOVERNANCE AND CHANGES TO GOVERNANCE IN REGARD TO TRANSFORMATION

The institution's official commitment to transformation was reflected in two separate strategies during the past decade, in the first strategic plan from 2010–2014, and later in the Strategic Planning Framework: 2016–2020. The first recognised the university's particular responsibility to produce the next generation of academics – not only for South Africa, but also for the rest of the continent. The success of this depended on building a diverse student body and a pipeline of black and women academic staff through recruitment and development. It also focused on how the university could play a transformative role in society by marshalling its resources to address the pressing social, economic and developmental problems facing South Africa and the continent (covered in the chapter on *UCT's Impact*). An important element of transformation in the first period was also an increased focus on African perspectives.





The latter plan (2016–2020) was significantly influenced by the student protests, and placed much emphasis on the need to address the issues of institutional culture and inclusiveness. The key shift was from a strategy that aimed at assisting those from previously marginalised groups to adapt to and succeed within the traditional culture of UCT, to a strategy that questioned and shifted the dominant culture of UCT, its identity, to become more inclusive of the variety of cultures, histories and ways of seeing the world that are represented by its diverse staff and student bodies.

Transformation Services Office becomes the Office for Inclusivity and Change

The Transformation Services Office, established in 2009, comprised four main services: employment equity, disability services, the Discrimination and Harassment Office (DISCHO) and the HIV/ AIDS Institutional Coordination Unit (HAICU). Over the years, and with the new strategic planning framework in 2016, some of these functions needed to be realigned and generalised, and in 2017, following a lengthy review, the office was restructured into the Office for Inclusivity and Change (OIC).

OIC is central to operationalising transformation. The director reports to the DVC responsible for Transformation. The OIC has as its main objective the facilitation of an enabling environment for all UCT stakeholders, one that promotes and supports measures of redress and the inclusion of diversities, cultures and identities. Broadly, its three target service areas include disability; discrimination and sexual assault case management; and cultural change, student capacity-building and education.

The OIC also undertakes implementation research to inform the unit's programmatic responses.

Transformation committees

Transformation committees (TCs) have revised their mandate, role and function in faculties and administrative departments in cooperation with the OIC. They provide the following support to their departments:

- Offer referrals and interventions
- Monitor transformation-related progress
- Support activities to promote understanding of others' world views and histories
- Have oversight of appointments and selection-committee employment equity representation.

The committees and their members are also tasked with mediating conflicts between staff and students, in consultation with deans and heads of department.

University Transformation Advisory Committee, Institutional Forum, Employment Equity Forum and Transformation Forum

The University Transformation Advisory Committee (UTAC), chaired by the Vice-Chancellor, aimed to provide space for engagement on matters related to employment equity and institutional culture. In 2016, it was decided that the UTAC should focus on fulfilling the statutory role (in the Employment Equity legislation) of an Employment Equity Forum, and was renamed as such, while the activities primarily related to institutional culture and policies relating to race and gender were shifted to a new structure, the Transformation Forum, a substructure of the Institutional Forum.

The Institutional Forum (IF) is the statutory body that provides advice to Council on matters related to transformation generally, as well as senior appointment processes.

The Transformation Forum and the Employment Equity Forum each comprise chairs or representatives of the transformation committees that exist in each of the faculties and administrative departments. With a renewed focus on strengthening the work of the transformation committees, the Transformation Forum provides a platform for sharing knowledge, challenges and good practice with regard to cultural change, as well as for discussing transformation-related activities and interventions that advance inclusion and diversity.

Policy and committee reviews

Between 2015 and 2017, to support the governance of the executive, several task teams were initiated to respond to the most pressing issues affecting the university. These included the:

Sexual Assault Response Team (see page 245)

- Mental Health Task Team (see page 216)
- Sexuality Policy Reference Group (see page 246)
- Curriculum Change Working Group (discussed in chapter on *Teaching and Learning*)
- Naming of Buildings Task Team* (see page 232)
- Works of Art Task Team* (see page 234)
- Institutional Reconciliation and Transformation Commission Steering Committee* (see page 240)
- Council and Senate Committee review commissions* set up to review the terms of reference and composition of the various Council and Senate committees, with a view to ensuring greater student representation, greater diversity, and that the terms of reference take account of the desire to address institutional culture issues.

(* set up by Council)



2 Transforming the demography of UCT students

From 2008 to 2017 UCT's total headcount enrolment increased from 22 608 to 28 694, constituting a 27% increase. Consistent with the *Size and Shape* plan's commitment to growing the postgraduate sector, postgraduate enrolment has increased by 67% and undergraduate enrolment by 11%.

There has been a significant increase in black student enrolments over the same period with a 63% increase compared to a drop in the percentage of white students by 18.2%. In 2008 white students made up 39% of total enrolment. In 2017, they made up 25%. However, the category "unknowns" is for students who elect not to classify themselves by race, and this has increased four-fold and is now 13.5%. The increasing number of students electing not to self-classify for race will make meaningful comparisons increasingly difficult in the years ahead.

At undergraduate level, from 2008 to 2017, there has been a 46.7% increase in the number of black undergraduates compared to a drop of



24.6% in the number of white undergraduates. The increase in black postgraduate enrolments has been even more dramatic at 131.8%.

Some of the transformation initiatives to increase access and support students, such as changes to the admissions and financial aid policies, are discussed broadly below. The scope of interventions is wide-ranging, and most of the programmes are detailed in depth in other chapters, including *Financial Sustainability*, *UCT's Impact* and most notably in *Teaching and Learning*.

Access and Admissions Policy

The question of how to select about 5 000 first-year students from the more than 25 000 applications annually, in a South Africa beset by historic disadvantage and inequality based on race, is certainly a complex one. While the university previously relied chiefly on an affirmative action approach based on race, as more black students were coming from relatively privileged schools, the black (and white) students from the poorest backgrounds were not getting selected. The Council appointed a commission chaired by one of its members, Justice Craig Howie, which collected evidence and arguments from all interested parties and concluded that the admissions policy was overweighting race per se, rather than the complex of factors that determine disadvantage, of which race was an important determinant, but not the only one. It recommended moving away from exclusive reliance on race as a marker of disadvantage.

In 2014, a new admissions policy was adopted by Senate and Council to help identify applicants with the potential to benefit from tertiary education, but whose marks may not have reflected their true merit. The new policy has three bands of admissions. The first admits a certain number purely on marks – UCT does not want to lose out on the top performing students nationally. The second and largest band selects students on marks weighted upwards by a disadvantage index which takes into account the quality of school the applicant attended, their parents' and grandparents' education, their home language, and whether the family relies on social grants. In other words, it explicitly gives advantage to those from disadvantaged backgrounds, without using race, although of course, most of those who come from such backgrounds will be black. The third band is a race-based selection, choosing the best of the African and coloured applicants not already selected in bands 1 and 2, to ensure that the university can deliberately address its redress and diversity targets.

The new policy was implemented in 2015 for the selection of the 2016 cohort. There is already some evidence of a greater number of students from more disadvantaged backgrounds gaining admission, however the policy will be formally evaluated and reviewed after at least three years of implementation.

Financial aid

For many years, UCT's financial aid system has been a key enabling factor in improving access to UCT for students from poorer households. However, until 2009, this financial aid was only available to top up the NSFAS funding which was usually not sufficient to cover the full cost of study at UCT. It also reduced the expected family contribution, which NSFAS prescribed, but which is, in UCT's experience, often unaffordable for poorer students. In 2009, the policy and budget were changed to provide grant and loan support from UCT's own funds to support students from households with a gross income of less than R450 000 increasing to R600 000 by 2016. These so-called gap-funded students, or "missing middle" students, are not eligible for NSFAS funding

because their family income is above the NSFAS threshold. This is discussed in more detail in the *Financial Sustainability* chapter, and includes the numbers of students who have benefitted over the decade.

In 2016 UCT developed a new approach to assist undergraduates to proceed with their studies if they were carrying fee debt from 2013, 2014 or 2015 which would have meant that they could neither continue with their studies nor graduate. This approach, using



funding from allocations made available by the government through NSFAS as well as from UCT's own sources and donors, ensured that no NSFAS-eligible students, provided they were academically eligible, were prevented from continuing their studies or from graduating due to not being able to afford fees.

The financial aid policy has been one of the most profound and successful strategies in transforming access to UCT for poorer students.

Other transformation-related initiatives that specifically address access include the 100UP and GILL NET programme in Khayelitsha and Mitchells Plain (covered in the *UCT's Impact* chapter); schools liaison outreach visits to rural schools across the country; Faculty of Science fairs at local disadvantaged schools; Open Day with special efforts to bus in students from non-traditional feeder schools; engagement with principals and career counsellors; arrangements to enable National

Benchmark Tests (NBT) to be offered closer to rural schools, and even at each school if necessary, and fundraising to halve the cost of the NBTs; and supporting UCT students from remote schools to go back to their schools to encourage learners to apply to UCT.

STUDENT PERFORMANCE, SUCCESS AND ATTRITION

With the expansion of admissions to more students from disadvantaged schools and communities, the challenges of providing sufficient support, academically and socially, to maximise their chances of success, are that much greater. The following is a list of projects and interventions which have been covered in other chapters:

- Monitoring student success and throughput, better use of data analytics, and use of National Benchmark Tests to place entering students into appropriate foundation or augmented programmes (*Teaching and Learning* chapter)
- Ongoing review of and investment in Academic Development Programmes and Academic Development Units and expansion to faculties that did not previously have academic development programmes (Humanities and Law) (*Teaching and Learning* chapter)
- Lecture video capture and the Classroom Renewal Project (*Teaching and Learning* chapter)
- Laptops provided to all financial-aid students (*Teaching and Learning* chapter)
- ICTS and technology created universal WiFi coverage including in all residences; computer labs with excellent bandwidth (*Meeting* UCT's Growing Needs chapter)



- First-Year Experience (*Teaching and Learning* chapter) which included redesign of the orientation week programmes; early assessment of academic progress so that corrective action could be taken; counselling and psychological support
- Major investment by donors in "wrap-around" support to their bursars providing counselling, intense individual follow-up and socio-cultural mentoring. Major donors providing such support included the Mastercard Foundation, the Michael and Susan Dell Foundation, the Moshal and Klaus-Jürgen Bathe Foundations, SAICA's Thuthuka programme, and the Ikusasa Student Financial Aid Programme ISFAP – the pilot funding scheme for missing middle students
- Focus on accommodation and residence life with priority allocation of residence places to disadvantaged students, and involvement of residence wardens, residence-based study groups, tutors and mentors in supporting students academically (*Student Life* chapter)
- UCT Plus (*Student Life* chapter)

- Tutor training to improve quality of tutorial support
- Courses and workshops for lecturers in teaching in diverse classrooms (*Teaching and Learning* chapter).

Mental Health

One of the major factors contributing to student drop out or poor performance has been the mental health status of students. The mental health of students has been a growing concern for a number of years, resulting in the establishment of the Mental Health Task Team (MHTT) in 2016. Comprising staff and students, the MHTT drafted a Student Mental Health Policy to guide the university in addressing mental health concerns. It held consultations in an open assembly meeting in May 2017, following up with more widespread consultation. Faculties, residences, student structures and individual students were invited to give feedback via an online survey. The MHTT also conducted research on the recent trends in mental health motivations for readmission appeals and for deferred exams. The policy was approved by Council in August 2018.

Towards the end of 2016 the MHTT submitted a stakeholder review report on student mental health to the DVC responsible for Transformation. Since 2016, the following additional measures were implemented in response to the growing number of cases of anxiety and depression, attempted suicides and absenteeism:

- Additional mental health support positions at the Student Wellness Service (SWS)
- The restructuring of the mental health service to substantially reduce waiting lists
- The inclusion of a mental health promotion and prevention portfolio at SWS
- A psychiatric nurse call-out system for emergencies in residences available after hours
- The South African Depression and Anxiety Group UCT Student Careline offers 24/7 telephonic counselling, advice, referral facilities and general support to students facing mental health challenges or contemplating suicide
- Initiatives to address institutional factors that may contribute to student mental health issues.

TRANSFORMING THE DEMOGRAPHY OF UCT STAFF - RECRUITMENT

Employment Equity (EE) profile of academic staff

The university aims to diversify its academic staff profile at a steady pace and has made significant progress over the past 10 years. The institution increased the percentage of permanent academic staff from designated groups by 9%, from 20% in 2008 to 29% in 2018. The EE numerical goal for this category is to reach 32% by 2020.

As at 1 May 2018, there were 1 165 permanent and two-year plus fixed-term contract academic staff at UCT. Of the total number of these academics, 10% are African South African, 13% coloured South African, 7% Indian South African, 45% white South African and 1% staff are categorised as "not declared" or "other".

Of the total number of permanent and two-year plus fixed-term contract academics, 880 (76%) are considered South African and 275 (24%) are categorised as foreign nationals. Note: In terms of the Employment Equity Act, these staff remain "foreign" even if they have had permanent SA residency for over 20 years. There has been a 2% growth in the number of permanent academic foreign nationals employed at the university over the past 10 years, including significant numbers from other African countries. According to the current EE Plan, the university aims to have a lower proportion (19%) of permanent foreign nationals by 2020.

A five-year review of employment equity, conducted in 2013, indicated that while there had been a significant change in demographic representation at the junior level, the university had not made sufficient progress in the equity profile of senior academic staff. The 2013 review included an analysis of exit interviews from staff who had resigned; the results indicate resignations were mainly in response to better opportunities, both inside and outside of academia.



218





ACADEMIC STAFF - ALL



PASS STAFF - ALL





In considering the 2018 profile of academic staff in comparison to the profile of academics in 2008, it is noted that while the proportion of staff in each category of black staff shows modest increases, there is a decrease of 12% in the proportion of white South Africans.

Professional, Administrative, Support and Service (PASS) staff

As at 1 May 2018, there were 3 533 PASS staff. In considering the current profile of staff in comparison to the profile of PASS staff in 2008 the following is notable:

- Of the total number of PASS staff, 1 280 (36%) are African South African, 1 568 (44%) coloured South African, 110 (3%) Indian South African, and 445 (13%) white South Africans.
- Only 3% of this category are foreign nationals, which is a decrease of 1.5% over the past 10 years.
- The current profile reflects changes due to voluntary separation packages and the insourcing of over 1 300 formerly outsourced staff.
- There was a decrease of 14% in the profile of white South Africans between 2008 and 2018.

Employment Equity interventions

As the figures demonstrate, the major challenge, and failure, has been on the academic side in recruiting South African black African staff, especially at the senior levels. All faculties reported similar difficulties in trying to recruit more black staff. Professional faculties reported that recruiting and retaining black South African academic staff was particularly difficult given private-sector demand for their skills.

Aside from simply a policy statement and plan to increase the number of black South African academic staff, the recruitment interventions included the following:

Employment equity representatives on every selection committee

 the rules for these have been refined over the decade, including EE reps as a requirement for quorum at all stages of the selection



PASS STAFF - PAYCLASS

process; requirements that EE reps complete training; EE reps submit reports following the selection committee to the relevant dean or executive director; selection committee chairs are also encouraged to undertake EE training.

- Advertising strategies for example, in some faculties and departments it was decided to advertise all positions using the targeted employment equity statement, which indicates the post should preferably be filled by a black South African.
- Employment Equity fund, under the control of the DVC responsible for Transformation, may be used to offer a position to a designated group candidate when there is no vacant post currently available (but where a vacancy is foreseen within two to three years) in order not to lose a candidate who could help address the university's equity targets. The strategy can also be applied to strategic PASS posts. The Employment Equity Fund has invested more than R18.5 million to fund more than 20 posts since 2011.
- A key factor is the institutional climate at UCT, and whether it is welcoming or alienating for black staff. This is important both in attracting and retaining staff. Interventions around the institutional climate are addressed separately on page 227.

ADDRESSING INEQUALITY IN THE WORKPLACE THROUGH INSOURCING

In November 2015 Council agreed to insource all the employees of the six outsourced services, namely grounds and gardens, residence cleaning, residence catering, campus cleaning, Jammie Shuttle staff and Campus Protection Services staff. In total, more than 1 300 staff were insourced during the course of 2016, following an extensive consultative process involving all the staff unions. Insourced workers received significant remuneration package increases of between 48% and 98%, as well as a reduction in their monthly working hours of approximately 25 hours a month.

STAFF PROFILE ACROSS LEVELS OF SENIORITY, STAFF DEVELOPMENT AND PROMOTION

Recognising that many of the future black academics will not come from a pool "out there" but will have to be developed internally, there have been a number of programmes aimed at "growing our own



timber". The internal promotion criteria and processes have also been reassessed to ensure they are not obstacles to transformation.

Representative Ad Hominem Promotions Committees

The criteria for ad hominem promotions within each faculty were reviewed to ensure there was no inherent bias in respect of black and women candidates.

The composition of the Faculty Ad Hominem Promotions Committees was changed from its previous incarnation; since 1999, most of the committees had comprised only full professors. This had the consequence of most Ad Hominem Promotion Committees having few or no black members. For example, in 2009 the Faculty of Science Ad Hominem Promotions Committee comprised five men and two women, all of whom were white. In 2018, this had changed to include associate professors and a senior lecturer: five men and three women; one is African, two are coloured and five are white.

In the past three years, criteria were developed for the promotion of staff on research-only terms of employment, and for those on teaching-



only or teaching-rich terms, thus recognising a more diverse range of talents and expertise than previously.

A survey conducted of ad hominem promotions over a 10-year period, measuring how long it took academics to be promoted, comparing race, gender and rank, did not find any evidence of bias – although international and younger staff enjoyed quicker promotion time.

Developing the pipeline for future academic staff

- The Recruitment, Development and Retention programme (RDR) was designed to help transform UCT by addressing elements of the institutional processes and environment on the one hand, and advancing individuals' careers on the other. One component is the new Next Generation Professoriate, which kicked off with 35 midlevel and senior academics from designated groups across all faculties. The programme is designed to ensure that they will all be promoted to associate or full professor within the following five years.
- Another project within RDR is the Next Generation Academics Programme, funded by the Department of Higher Education and Training, and aimed at recruiting students entering their PhD studies into an academic career by providing a salary and commitment to employment on completion.

These complemented some long-standing academic staff development programmes:

• New Academic Practitioners Programme (NAPP): Professional development for new academics at UCT with fewer than five years' experience in higher education; its key focus is to strengthen resources and practices that enable their development as educators and researchers.

- Emerging Researcher Programme (ERP): Aid for early-career academics to achieve the milestones necessary for them to advance in a research-intensive university.
- Programme for Emerging Researchers (PERC): Building on the work of the ERP, this promotes locally-grown knowledge paradigms with the aim of shifting scholarship from Eurocentric to African models.

Skills development for academic and PASS staff

Over the past decade UCT has developed various employee skillsimprovement initiatives, to help increase job satisfaction and productivity, and in some instances to train staff to become leaders. Coaching and mentoring services were initiated in 2012 and are provided to all senior management, with the aim of improving employee resilience and effectiveness in times of change. Coaching is currently coupled with a 360-degree multi-rater system used as a mechanism to bring awareness to leaders of their interactions, strengths and opportunities for change. Since 2012, 85 academic staff and 105 PASS staff have participated in the coaching programme.

For PASS staff, UCT has always had a comprehensive offering of staff development courses, which have now been extended to offer appropriate training to the workers who had previously been insourced. For example, Adult Based Education and Training (ABET) and the General Education and Training Certificate (GETC) are aimed at employees who want to advance and/or finish their schooling. Candidates may start at Grade 1 and complete the programme at Grade 12 with a matric certificate. Since 2016, provision has been made for staff to attend evening classes and 33 staff have participated to date.



AND DECOLONIALITY

Although the #RhodesMustFall protests highlighted the ways in which symbols on the campus reflected not only UCT's colonial past, but an ongoing culture of coloniality and whiteness, and therefore precipitated an acceleration of transformation activities, many of these activities were already on the agenda and making progress before 2015.

Khuluma

Launched in late 2006, Khuluma was UCT's first institutional climate intervention strategy and transformation leadership development



programme. The Khuluma programme was organised as a series of three-day workshops (later two days), in which groups of about 20 people identified and confronted racial stereotypes within South Africa's context of past and continuing discrimination, the misuse of positional authority, and assumptions of white superiority. By the end of 2008, about 350 staff had participated in these workshops. The Khuluma workshops were intended to be followed up by reconvening the groups in larger discussions in a programme known as Mamela, but participation was low and this was not successful.

Over the next two years to 2010, a further 800 staff participated in Khuluma retreats. Evaluation of the programme indicated that most participants thought they really benefitted and would recommend it to others. The Khuluma process was often described as "intense"; but there was also some criticism, for instance that identification and dissection of racial stereotypes were over-emphasised. It was always clear that the interpersonal dynamics in the workshops would be compromised if people were compelled to participate rather than doing so voluntarily, and by the end of 2010, there were too few who still wished to participate to fill the workshops and so the programme was terminated and replaced with a new programme, ADAPT.

ADAPT

The ADAPT programme was designed to focus on intercultural competencies as a key methodology to explore difference and otherness, along lines such as race, class, gender and culture. It presented a novel way to explore and develop awareness around tolerance, intercultural and leadership competencies, diversity and inclusion at UCT.

The issue of those not volunteering being encouraged to attend was addressed by having the ADAPT one-day workshops organised by department or workplace unit. This meant people were attending because they were part of a team and recognised that it would be inappropriate not to participate. However, from the evaluation forms it became clear that many staff members felt compelled to attend, and the consequences and merit of this remained an ongoing debate. A strength of the programme was its ability to adjust to changing demands and audiences, as well as department- or faculty-specific needs. The generous use of video excerpts as part of ADAPT's core methodology worked well, and managed to draw the participants into lively discussions. A further development was a range of seminars and discussion forums following the ADAPT themes.

ADAPT received generous funding from Carnegie. The project was extended twice since its inception in 2011. The funding also included a formal evaluation, conducted by Professor Joha Louw-Potgieter. When the programme concluded in 2013, almost 1 200 participants had attended. Most attendees were staff members – about 10% were students. (The programme was designed as a staff intervention, and the student development came as a late addition.)

Ombud

In 2010, UCT established the office of the Ombud, a position Dr Price had touted since his installation, with a view to helping individuals who felt their concerns and grievances were unheard, or lost in the labyrinthine bureaucracy of the university, or who felt they risked being victimised if they were to raise their problems directly with those in authority. The Ombud's office was intended to foster an equitable and fair academic and working environment, and also to act as an impartial disputeresolution practitioner providing confidential and informal assistance to the university community. The first fully-resourced ombud's office at a South African university, its reach has extended to other tertiary institutions across the country after the Chief Director of Higher Education urged other universities to emulate the approach. Under Zetu Makamandela-Mguqulwa, the office also facilitated training by the International Ombudsman Association in 2015 for other universities.

UCT's Ombud's office was not necessitated by visible conflict, but rather by the foresight that an independent and impartial office would further the university's transformation efforts. To ensure objectivity and independence, the Ombud reports to the Office of the Chair of Council, while enjoying access to the senior leadership group to discuss emerging issues and conflicts.

Up to the end of 2017, Makamandela-Mguqulwa met with more than 6 000 people who came to discuss their experiences at UCT and seek guidance regarding a wide array of concerns. The number of people consulting the Ombud increased from 260 a year in 2012 to 700 in 2017. The balance reflects those who sought information only.

A breakdown of the statistics in the Ombud's annual reports show that the majority of the complaints and issues fell into two categories: evaluative relationships and services/administrative issues. Communication issues have remained the most frequently identified concern in the past three years.

Under services/administration issues, quality of service complaints are most common. Departmental climate issues, which reflect people's concerns about the departments in which they work or study, were also high. Highest of all in this category was administrative decisions and interpretation/application of rules.

Among the issues flagged for urgent attention in the 2016 and 2017 reports was that the number of bullying complaints had doubled during the reporting period, along with the continuing increase in the number of students seeking mental health assistance and contemplating selfharm.



Whistle-blowing Hotline

Whistle-blowing guidelines were approved by Council in December 2010 and the 24-hour hotline went live in January 2015, to give staff and students a way to anonymously report suspicious activities that may reflect fraud, conflicts of interest, or any unacceptable practices or behaviour by any member of the UCT community or other parties having a business relationship with the university. Each allegation received was finalised and an official response provided via the hotline.

Naming of Buildings Task Team and Committee

For several decades, UCT's management and Council had been renaming buildings and spaces to reflect the different histories of the diverse communities that comprise the university's student and staff bodies, with the aim of making UCT a more inclusive institution. These included buildings and spaces renamed to celebrate the contributions of South African activists Steve Biko, Dullah Omar, Cissie Gool, Molly Blackburn, and indigenous names such as Hoerikwagga.

In 2015, in response to protesters' calls to make campus a more inclusive space, the Council established a task team to review the work of the Naming of Buildings Committee (NOBC) to determine the continuing relevance of their terms of reference and composition in the face of the need for greater student participation, and greater diversity on the committees, and the ability to respond more quickly to issues. A year later, Council approved new terms of reference for, and composition of the NOBC. The task team was also asked to conduct an audit and analysis of the names of buildings, rooms, spaces and roads that hark back to UCT's colonial past. The new NOBC then took this up and consulted with the campus community to solicit views on names that should be changed. In

THE FOLLOWING BUILDINGS WERE NAMED OR RENAMED BY THE UCT COUNCIL DURING THE PAST DECADE.

PREVIOUS NAME	NEW NAME
Princess Christian Home	Ivan Toms Building
New Residence	Obz Square
New Student Admin Building	Masingene
2 Rhodes Avenue	Allan Cormack House
Mill Court & Shell Court	Meulenhof
York Gardens	Dullah Omar Hall
Building Housing ICTS	ICTS on Main
Humanities Building	Neville Alexander Building
Arts Block	AC Jordan Building
New Science Lecture Theatre	Chris Hani Building
Palm Court	Harold Cressy Hall
Rugby and Ring Roads	Madiba Circle
Memorial Hall	Sarah Baartman Hall

2016 the Vice-Chancellor invited the UCT community to submit nominations through a consultative process for the renaming of Jameson Memorial Hall among others.

In October 2017, Council agreed to temporarily rename Jameson Hall as Memorial Hall until such time as consultations with the Khoi San leadership were successfully completed regarding a possible renaming to the Sarah Baartman Hall*.

*The UCT Council made the decision to rename Memorial Hall to the Sarah Baartman Hall in December 2018.

Works of Art Task Team and Committee

The Works of Art Task Team (WATT) was established in 2015 in the wake of protests and complaints about the controversial symbolic landscape at UCT. Comprising art historians, curators, academics and students, WATT began a process of consultations and discussions around art works. Among other things it performed an audit of artworks, plaques and statues on UCT's campuses, and determined that white artists and white achievement were far more frequently represented than their black counterparts.

Following rigorous public and UCT-wide debate, the policy for acquiring art was amended to balance the diversity of both artists and subject matter. The composition and terms of reference of the Works of Art Committee (WOAC) were revised.

The WATT also had to deal with the crisis precipitated by the burning of portraits and artworks on 16 February 2016 during the student disruptions known as the Shackville protests. As a result of recommendations made by the WATT, the university took a decision to remove some artworks from display that had been identified by



protesters as controversial and/or offensive. There were two arguments behind this move – first that the university needed to protect the artworks from vandalism and there was clearly a demonstrated risk to them, especially those that had been the subject of public debate; and second, it would give time for the WATT to facilitate discussions and education about the artworks, to develop a curatorial policy about what should be displayed where and how it should be contextualised, as well as issues of artistic and academic freedom, and artists' rights to have their works displayed as they intended them. This was a particular controversy in connection with the Sarah Baartman sculpture by artist Willie Bester in the UCT Library, which was covered or clothed by a group who objected to what they alleged was repeated exploitation and objectification of a black woman's near-naked body.

This consultation and discussion process is ongoing. *Inter alia*, a public conversation was held in March 2018 with Bester; student Qondiswa James; and art historian Nomusa Makhubu. At time of

VICE-CHANCELLOR'S STRATEGIC FUND AND DISCRETIONARY FUND

UCT's financial policy allows for annual allocations to the Vice-Chancellor's Discretionary Fund, as well as the Vice-Chancellor's Strategic Fund. These are non-recurrent funds to be used for strategic, or emergency institutional projects for limited time periods. Close to R400 million was disbursed over the 10 years to support a wide range of programmes and initiatives – mostly in furtherance of the transformation agenda.

Vice-Chancellor's Strategic Fund

The Vice-Chancellor's Strategic Fund was established by Dr Price in 2009 to support activities that would advance UCT's vision and strategic plan. In the eight years between 2010 and 2017, the fund allocated over R135 million to more than 100 competitive proposals that were reviewed and selected by a committee comprising the Vice-Chancellor and Deputy Vice-Chancellors. Applicants had to demonstrate that their projects were in alignment with the university's strategic objectives. In addition, they provided business plans to illustrate future sustainability, as well as evidence of innovation and collaboration. Project leaders were required to reflect on their experiences and provide annual reports as their motivation for further tranches of funding, and final reports to highlight the impact of the various projects.

Projects ranged from new research areas to student and staff support to infrastructure projects, and included the development of massive open online courses (MOOCs); the Vice-Chancellor's Strategic Initiatives; projects to enhance students' learning experience, such as blended learning and online versions of teaching programmes; and the UCT Web Renewal Project and the Knowledge Co-op, to name just a few.

Vice-Chancellor's Discretionary Fund

Non-recurrent discretionary allocations were used to support numerous transformation initiatives for limited periods, including the following activities:

- The Sports Council's Transformation Fund, established in 2013 to support economically disadvantaged students participating in sports codes that are traditionally expensive, or where they must cover their own costs of travel to national competitions
- The Works of Art Task Team and interventions
- The development of an integrated plan for the transformation of teaching and learning to improve student success at UCT
- Support of the process to set up and manage the Institutional Reconciliation and Transformation Commission
- Institutional climate surveys and associated interventions
- The memorialisation of the Rustenburg burial ground on middle campus, where the remains of slaves were found during the building of new campus facilities
- The initial pilot study for the Laptop Project (for more information on this project see page 140)
- The start-up costs for the Southern African Legal Information Institute (SAFLI), which provides free access for legal researchers to find judgments from courts in South Africa and 15 southern and eastern African countries
- Participation in the African Research Universities Alliance (see more about ARUA on page 87)
- Providing start-up funding for the eResearch Centre to support

UCT's Big Data Initiative and allow for training of big data experts

- Managing the insourcing project to address the challenges of multi-union negotiations and regrade all jobs associated with insourced staff
- Assisting researchers with grant-writing training to ensure they are able to compete for funding effectively
- Funding of the Sexual Assault Response Team (see page 245 for further details)



- Funding of the SA Depression and Anxiety Group (SADAG) helpline for students (see page 217 for further details)
- African Student Leaders' Summit (SRC initiative)
- Funding, through IAPO, of the annual Africa Month initiatives across the university
- Start-up funding for the Recruitment, Development and Retention programme and the Next Generation Professoriate
- Enabling mediation and engagement with #RhodesMustFall, #FeesMustFall and other student activist groups.



writing, WOAC was developing an exhibition of the work together with other works, as well as events that will involve the university community and the public at large in issues that the sculpture has brought up.

A curatorial working subcommittee of the WOAC reconsidered the UCT Works of Art Collection by re-curating the Molly Blackburn Hall (from which paintings had been removed or burnt), and launched this publicly in March 2018, with discussion groups, presentations and an opening event. This represented the first of many campus-wide rehangs reflecting a new approach to the collection.

In response to medium- to long-term recommendations by the WATT, the WOAC was reconstituted in late 2017 with slightly revised terms of reference and composition, and it has worked on a programme of action which will be implemented over a four-year period until 2021. Aside from developing clear curatorial policy guidelines informed by the contexts of the university's public spaces, the WOAC will develop an acquisitions policy for the university. It is also producing a website allowing open access to the university's collection, and updates on the various initiatives. In the medium- to long-term, the WOAC is working towards the establishment of an art museum that will house parts of the university's collection and create a public platform for engagement through ongoing curated exhibitions.

The artworks and symbols will remain a critical issue and a key aspect of the wider transformation process at UCT.

Institutional Reconciliation and Transformation Commission (IRTC)

When student protests ended in November 2016, and before exams



went ahead, UCT and student protest leaders signed an agreement to convene the IRTC to be directed by Council.

The first steps towards setting up the IRTC began in early 2017 when the multi-stakeholder IRTC Steering Committee was tasked with identifying the process for selecting commissioners and considering the IRTC's terms of reference. Unfortunately it took almost a year for the appointments to be made and the IRTC process got under way only in March 2018. The commissioners are former cabinet minister Mosibudi Mangena (chair), Dr Yvette Abrahams, Dr Malose Langa, Ms Yasmin Sooka and Justice Zak Yacoob. They are tasked with the following terms of reference:

- To consider all Shackville-related protests of 2016, as well as the related disciplinary procedures and interdicts
- To invite submissions from all constituencies on clemencies, and determine whether clemencies should turn into amnesties

- To make recommendations on how the university should deal with pending cases and similar matters in the future
- To make recommendations on institutional culture, transformation, decolonisation, discrimination, identity, disability, and any other issues related to transformation.

For the latest information on the IRTC process visit news.uct.ac.za/ news/debate/irtc.





A CLUSTER OF SERVICES ADDRESSING SPECIFIC AREAS OF EXCLUSION/INCLUSION AND RESPECT FOR EQUAL DIGNITY: DISABILITY, GENDER AND SEXUALITY.

Disability Service

UCT's Disability Service (DS) facilitates and provides access and specialised support for students and staff with disabilities. DS attempts to address physical, policy, information and attitude barriers that might prevent students and staff from fulfilling their potential – from organising wheelchairs for students to finding a sign-language interpreter, or hiring a note-taker to assist with a student's lectures.

DS developed and now implements the policy on disability adopted by the university Council in 2011. It has increasingly been



challenged by the apparent increase in students with chronic mental health problems. The DS services required may range from organising special exam-period support for students with mental disabilities to providing ongoing support to students with autism spectrum disorder or attention deficit disorder, for example.

Given the average age of UCT's buildings and the topography of the campus, wheelchair access is a particular challenge. But the prioritisation of providing equal opportunities to students with disabilities led to a major retrofitting programme. In 2014, 31 buildings were audited to establish if they were compliant in terms of universal design and physical planning. UCT's vision is to ensure that by 2025 all 31 buildings are compliant. Since 2008, DS together with the Properties and Services Department have ensured that all new buildings are designed to provide universal access.

Sexual Assault Response Team

The Sexual Assault Response Team (SART) was established in 2016 in response to claims by survivors of sexual assault that the institution was not always handling cases appropriately – especially in terms of managing the alleged perpetrators. This led to a review of disciplinary cases of the previous five years, which in general did not signal miscarriages of justice, but did highlight unexplained inconsistencies. It also led to the establishment of SART to provide oversight of the institution's responses to cases of sexual assault and harassment. SART is a survivor-centred, collaborative and multidisciplinary team that coordinates support for survivors, develops educational material and provides advice on combating sexual violence. It comprises members of the university community, community-based organisations, SAPS, health practitioners, student representatives and survivors.





SART works closely with the OIC as part of a coherent strategy to address sexual violence, with the OIC taking responsibility for case management and education, while policy and monitoring is done by SART. SART and the OIC submit quarterly reports to Council and the campus on sexual violence cases and their management.

Sexuality Policy Reference Group

The Sexuality Policy Reference Group drew up a policy with the purpose of ensuring equality and prohibiting discrimination on the basis of sex, gender or sexual orientation. In development since 2014, UCT's Inclusivity Policy for Sexual Orientation was revised following various stakeholder engagements over three years, and ratified by Council in December 2017. The policy articulates how UCT's institutional culture can recognise sexual diversity and protect the constitutional rights of staff and students.

246

Similarly, in 2014, UCT's Draft Gender Policy was initiated and is currently under final review prior to university-wide consultation. The Gender Policy was developed by a specially constituted working group, which considered – among other institutional processes – the administrative and student admissions systems, which have already been amended to allow staff and students to identify their own gender rather than being forced to choose "male" or "female", and has started the process of designating and fitting out gender-neutral toilets. Male and female residence policies are also under review.

O THE KNOWLEDGE PROJECT - CURRICULUM DEVELOPMENT, RESEARCH FOCUS, FOREGROUNDING AFRICAN VOICES, IDENTIFICATION AND INTELLECTUAL LINKS WITH THE REST OF THE CONTINENT

UCT has created a number of new institutes, centres and projects aimed at helping build expertise about the African continent – an intervention crucial to transformation – while also putting the institution in the premier position in a variety of disciplines in respect of the continent. The goal is to see UCT become a magnet for postgraduate students studying disciplines in an African context. By forming links with, and extending invitations to leading academics on the continent, this also fulfils a goal first expressed in the initial Strategic Plan, of giving more space and acknowledgement to African voices in research and teaching – especially African intellectuals, who should merit the same critical engagement as those from the West.

Centre for African Studies

Relaunched in 2012, this interdisciplinary teaching and research cluster in the School of African and Gender Studies, Anthropology and Linguistics has a mandate to promote and support African studies across the various UCT faculties. It operates alongside the African Studies Unit, which offers a full academic programme, concentrated at graduate level but including some undergraduate courses. Together the two support a number of projects, including:

- The African Studies Gallery
- The AC Jordan Chair of African Studies
- The NRF Chair in Land Reform and Democracy in South Africa
- The journal Social Dynamics
- The Harry Oppenheimer Institute, a granting committee that supports African Studies at UCT
- Curate Africa, a project focused on photography, new media and the visual cultures of Africa and the diaspora.

They also support a growing list of Africa-centred international collaborations, new research projects, seminars and conferences, student initiatives on the decolonisation of the curriculum, socially engaged research with public intellectuals and community organisations, and various publication initiatives.

The Archie Mafeje Chair in Critical and Decolonial Humanities

Professor Shahid Vawda became the first incumbent after the Chair was established in 2017, funded initially by the AW Mellon Foundation as a position for a black South African candidate.



The Centre for African Language Diversity (CALDi)

This unique and innovative centre was launched in 2012 to encourage and support primary research into African languages, with a particular view to fostering the sustainability of linguistic diversity on the African continent. CALDi prioritises the documentation of endangered African languages. The centre trains students and young scholars from the African continent, facilitating the provision of scholarships at different academic levels.

The Multilingualism Education Project (MEP)

Launched in 2005 after the approval of UCT's Language Policy and

Plan by the Senate and Council, the project aimed initially to prepare students to participate in a fully multilingual society, where multilingual proficiency and awareness are essential. The Language Plan proposed strategies, guidelines and structures for implementation in respect of teaching African languages to staff and students, promoting scholarship in all South African languages, and facilitating proficiency in English, while promoting multilingualism in the environment.

Hosted by CHED and managed by a Senate Language Policy Committee, MEP pursues the following projects:

- isiXhosa Communication Skills courses for students and staff
- isiXhosa and Afrikaans for Law (to be extended to faculties including: Commerce, Science and Engineering & the Built Environment)
- Multilingual signage
- Multilingual Concept Literacy Glossaries.



Centre for Comparative Law in Africa

UCT established the Centre for Comparative Law in Africa in 2011 to promote the study of the diversity of legal systems. It is located in the Department of Commercial Law, thus recognising the centrality of comparative law to ongoing efforts at economic integration on the African continent. Companies operating in various African countries need lawyers who can advise them on the different legal frameworks and have the skills to interpret, help align, and even challenge, that legislation. A further aim was to draw on the strengths of comparative methodology to research the multifaceted field of law in Africa.

The Institute for Humanities in Africa (HUMA)

HUMA was established in 2010 with a view to creating a space of dynamic interdisciplinary community for scholars and students in the humanities at large; not only fostering top-end academic research but also nurturing critical public debate, while promoting the university's vision as a civic university that contributes to democratic citizenship. With core funding from the AW Mellon Foundation, HUMA's mission is embedded in a particular understanding of UCT's location in Africa.

National Research Chair for Customary Law

In 2010, the Chair in Customary Law was awarded under the NRF SARChI programme and Professor Chuma Himonga became the first incumbent in 2011. Research focuses on the actual workings of customary law as a normative system in a legally pluralistic context, and on how customary law interacts with other components of the legal system, including common law and human rights.

All Africa House Fellowship Programme

This programme, funded by the Vice-Chancellor's Strategic Fund, was conceptualised in 2009 as one of the features of All Africa House as an academic residence, and as part of the university's Afropolitan vision. The fellowships are designed to attract young or mid-career academics from universities in Africa (but outside South Africa) to spend three months at All Africa House developing their teaching materials or writing up completed research for publication. Since its inception, the programme has hosted 29 Fellows. (See page 78 for more information.)

Emerging African Leaders Programme

This programme, within the Nelson Mandela School of Public Governance, offers two weeks of intensive leadership training to Africans to engage with African experts in governance, policy and activism. It aims to gather outstanding emerging leaders from a broad variety of backgrounds and professional fields, to inspire ethical and accountable leadership. Each participant is allocated an executive coach to provide support and guidance, both during and after the course.


Curriculum Change Working Group

Established in 2016 as a black-led, inclusive and broadly representative grouping of academics and students, the Curriculum Change Working Group's (CCWG) role has been to explore curriculum change at UCT, with an emphasis on decolonialising the curriculum. The CCWG aims to formulate strategies for engaging academics and students through facilitated dialogue on critical curriculum transformation. This is covered in the *Teaching and Learning* chapter on page 144.

Numerous other African-oriented research centres and courses have been started during this decade – the above are but a small sample. The *Research* and *UCT's Impact* chapters contain more examples.

Environmental sustainability of the campus

One dimension of transformation is a focus on sustainability of the campus itself. (Many research programmes address environmental and sustainability issues in the world and in societies outside the university.) Below are five examples of such activities.

Council approved a new building policy that requires all new buildings built after 2012 to comply with the four-star green building rating for sustainability. Some retrofitting is taking place in old buildings, such as the installation of utility meters so that each building can be set targets for electricity and water use reduction.

Particularly since the deteriorating drought conditions in the Western Cape, UCT committed to reducing its consumption of municipally supplied water by 50%. Interventions ranged from replacing shower heads and washing machines in residences, and issuing thousands of buckets to encourage the recycling of shower water, to geo-surveys for additional boreholes, education campaigns to reduce flushing and wastage, automated remote metering on many buildings and use of dam water for irrigating sports grounds.

To reduce the carbon footprint from transport, a carpooling system was introduced with preferential parking allocations for carpool vehicles, the Jammie buses were replaced with more efficient buses, and the routes up the hill to upper campus were changed to save diesel.

In response to a call from students and some academics to divest the university's endowments from fossil fuel companies, the Council and the University Foundation established a new governance structure for responsible investment (no such ethical oversight on investments had previously existed). This panel advises the Council and foundation trustees on policy which informs the Joint Investment Committee which manages the university's and foundation's assets. An initial audit has been done to assess the ESG (Environment, Sustainability and Governance) score of UCT's investments relative to all share benchmarks. Policy guidelines are still to be developed.

Conclusion

The process of transformation continues to gain momentum and remains an urgent priority for the institution.

UCT established governance structures to oversee and spur on specific areas of change such as the task teams on building names, and works of art, sexuality and mental health, gender and disability, and the restructuring of the Office for Inclusivity and Change and the Employment Equity programmes.

Other interventions to tackle the institutional climate included the

Office of the Ombud, the mediation policy, the whistle-blowing policy and a whistle-blowing hotline, leadership coaching and the Khuluma and ADAPT programmes to address the interpersonal dynamics of 'othering'.

Changes to the admissions policy and financial-aid policy helped increase the recruitment of students from disadvantaged backgrounds. Many interventions to increase the number of black South African academic staff, focusing on recruitment and advancement, have been implemented but with limited success as yet in changing the demographic profile of the senior academic ranks.

UCT continues to support the work of research groups, centres and chairs that are seeking to study and assist transformation in society. Specifically the cross-disciplinary institutes and Vice-Chancellor's initiatives focused UCT research resources on major national developmental challenges.



The role of the university as an agent of transformation via education was brought to the fore, not only in formal classes and lectures but also through extracurricular activities and opportunities for students to address inequality in society. Moreover, the university has invested considerably to make its knowledge resources and teaching more widely available through a range of electronic media such as MOOCs and digital archives, to name just two.

Dozens of individual faculty and departmentally based transformation projects were funded through the VC's discretionary and strategic funding budgets.

In recent years these changes took place against the background of student-led protests. While protesters sometimes disrupted campus



life and undoubtedly spurred on transformation that might otherwise have moved too slowly, the university continued to conduct its business as an institution dedicated to transformation in concrete and practical forms.

For the foreseeable future, the transformation portfolio will need to focus on the following objectives:

- Progressively respond to the institutional challenges and infrastructural barriers affecting disabled staff and students to ensure that UCT is accessible and inclusive
- Develop UCT's gender diversity response and related policy
- Develop and implement a comprehensive employment equity plan
- Build on the training programme for employment equity representatives and selection committee chairs
- Implement the new mental health policy and continue to strengthen the work done in the area of student mental wellness
- Develop interventions that will ensure student success probably with greater use of data analytics
- Find solutions for students not covered by the new NSFAS policy, particularly postgraduate students
- Continue the work on institutional climate and decolonisation, including conducting ongoing institutional culture surveys
- Continue with the work of the Transformation Forum, and investigate ways in which excellence in transformation can be recognised and rewarded.

As the university advances its transformation agenda it will continue to adapt and refine policies and practices to ensure UCT is an inclusive and welcoming space for all students and staff.

CHAPTER EIGHT FINANCIAL SUSTAINABILITY

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Disciplined financial management that looks to the future has long been a cornerstone of stewardship at UCT. In a decade of declining state subsidies per student and escalating costs, particularly of labour, UCT managed to extend financial aid to all students in need, to secure a significant capital investment programme for the future, to raise record levels of donations and third-stream income, and to ensure financial stability and resources to implement its new strategic goals.

As a policy, the university aims to achieve 3% of Council-controlled revenue as surplus revenue. This surplus allows the institution to grow investment income and to pay for capital expenditure, such as building new lecture halls and residences and funding strategic initiatives. The capital expenditure throughout the decade was maintained, totalling some R1.5 billion.



UCT CORE OPERATIONS RELY ON FIVE FUNDING SOURCES

Five of UCT's funding sources are detailed in the table below:

ANALYSIS OF INCOME 2017

	Percentage	R 000's
Government subsidies	32.31%	1 842 130
Student fees for tuition & residences	28.01%	1 597 183
Income from research grants & contracts	17.78%	1 013 619
Rendering of services inclusive of income from commercial activities and university- owned businesses	16.87%	961 861
Income from investments, donations, endowments and interest on reserves	5.03%	286 559

UCT has little influence over the state subsidy, and even before the call for fee-free higher education, student fee increase options have always been limited. Nevertheless, in the face of the declining trend in real per capita subsidy (2.5 percentage points behind inflation and four percentage points behind UCT cost increases), for the first few years of this period, UCT was able to raise fees at rates several points above inflation to maintain a stable net income. The growth in student numbers also assisted in supporting the budget.

Across the country, universities faced similar pressures to increase student fees at well above inflation. In September 2015, UCT with the support of the SRC, approved a fee increase of 10.5%. But a month later, an emerging student call for zero fee increases rapidly became the nationwide #FeesMustFall campaign for free higher education for all students. This massive protest, on campuses, at Parliament and the Union Buildings, brought the higher education system into crisis.

As a compromise, the government urged universities not to increase their fees for 2016, and provided, in UCT's case, an 85% subsidy toward the planned increase of 10.5% that was needed to fund its expenditure commitments. This meant UCT had to operate with R25 million less revenue than was budgeted. (This fee replacement subsidy was reduced in subsequent years by a further R15 million each year.) At the end of 2016, together with other universities, UCT announced an 8% tuition fee increase for the 2017 academic year. Government agreed to pay the increase on behalf of students from families with gross annual incomes of less than R600 000. The same was repeated for 2018. In effect, in 2018, students with family incomes below R600 000 are paying the same fees as they were in 2015, which in real terms, mean their fees have declined by about 20%.

Yet long before the 2015/2016 fees crisis, the declining state subsidy meant the university was experiencing operating deficits. Costs continued to rise, driven by several factors. Annual salary increases at several points above Consumer Price Index (CPI) have been a key driver. Increasing student numbers have been another. Operating costs in the higher education sector have also tended to exceed CPI. In particular, those sectors sensitive to the exchange rate – such as libraries, IT software, research consumables and equipment, fuel (for the Jammie Shuttle), and utilities – experienced cost increases over which the university had little control. Since 2013, UCT had been incurring an operating deficit – compounded more recently by pressures on fee increases and the rapidly growing demand for financial assistance – which is expected to continue to outpace the rate of inflation.

	Notes	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Data/Ratios	110105	2000	2005	2010	2011	LUIL	2010	2014	2013	2010	2017
Unweighted student FTEs*	1	17 716.582	18 853.745	19 651.610	19 846.792	20 441.646	20 041.624	20 055.492	20 777.22699	22 137.101	Not Available
Ratio: fees to subsidy		0.71	0.74	0.72	0.72	0.81	0.86	0.93	1.07	1.08	1.07
		R m's	R m's	R m's							
Income		1 306	1 511	1 719	1 877	2 024	2 167	2 335	2 539	2 848	3 005
State appropriations: subsidies & grants	2	684	776	903	1 002	1 027	1 069	1 104	1 122	1 172	1 226
State appropriations: subsidiy for zero fees	3									135	140
Tuition and other fee income		483	577	654	725	830	920	1 025	1 199	1 260	1 307
Sales of goods & services		139	158	162	140	167	178	206	218	282	332
Expenditure		1 319	1 487	1 686	1 791	2 010	2 224	2 395	2 618	2 951	3 054
Personnel	4	801	920	1 046	1 154	1 283	1 393	1 543	1 686	1 958	2 066
Other operating expenses	5	443	461	505	526	587	676	677	727	805	751
Bursaries		56	86	110	90	114	127	139	162	140	186
Depreciation and minor capital items expensed		19	20	25	21	26	28	36	44	48	52
Operating Surplus/(Deficit)		-13	24	33	86	14	-57	-60	-79	-103	-50
Investment income		95	86	66	69	88	74	98	137	163	191
Surplus/(Deficit) after investment income		82	110	99	155	102	17	38	58	60	141

Notes

- 1 The *full-time equivalent (FTE) data for 2017 is not yet available and is only finalised for audit and HEMIS submission in August 2018.
- **2** The state grant to universities is mostly made up of a block grant for teaching and a block grant for research output in the form of publications and research degrees (master's and PhDs). The national student numbers and research output have grown considerably faster than the budget allocations.

3 In 2016 the state declared a zero percent fee increase. Part of this lost fee increase was covered by the state via increased subsidy.

4 Insourcing for the majority of services took place on 1 July 2016, while 2017 reflects the first full year of insourced staffing costs.

5 Due to insourcing, costs moved between operating costs for outsourced services, to the personnel line – see note 4 above.

Financial aid

UCT is committed to not turning away students who cannot afford university fees. Today, two out of every five undergraduates at UCT receive financial support, which is nearly double what it was in 2008. In 2009, the first full year of Dr Price's tenure, it was clear that National Student Financial Aid Scheme (NSFAS) was not covering the full costs even of those students who were eligible for NSFAS funding. Also of concern was the low upper-income threshold for NSFAS eligibility. Students above the NSFAS threshold still cannot afford the fees and accommodation. These are known at UCT as the Gap students, or elsewhere as the 'missing middle'. To ensure that the university could provide adequate financial aid for disadvantaged students in these circumstances, a revised financial aid policy was adopted in 2010 which provided aid to Gap students. A new post in the Student Financial Aid office was created, aimed at providing better support to sponsors and exploring new sponsorships (as distinct from donations).

In 2017, a total of 4 541 students were assisted with financial aid from the NSFAS and UCT funding, with a further 3 923 assisted by external bursaries from the corporate sector. This represents 50% of all undergraduate students in 2017. At undergraduate level, financial aid amounted to R739 million, which came from various sources: corporate and other external bursaries (R269.3 million), NSFAS loans (R227.4 million), endowments and other funds (R96.8 million) and UCT's own budget (R145.5 million).

Approximately 90% of recipients were black South Africans (African, Coloured and Indian). UCT has maintained its commitment to provide financial aid to all students who are eligible academically, according to need – including those from working-class families who do not qualify for NSFAS assistance.



Austerity measures

By the end of the 2013 budget cycle, the UCT Council had approved the creation of a Special Budget Task Team (SBTT) to address the longterm predictions of non-sustainability due to declining state subsidies. The first iteration focused on reducing operational expenditure but could not achieve sufficient savings, and so, by 2015, the university had decided to reduce the staff budget to achieve financial sustainability.

UCT sought to reduce annual net costs by R120 million. This target was calculated to avoid a serious deficit. About 80% of these savings would be made by reducing staff costs and 20% from operating costs. The strategy relied, wherever possible, on natural attrition such as retirements or resignations, assisted by incentivised retirement and voluntary separation packages.

There followed an extensive consultative process involving all faculties and departments, to determine where financial savings could

be made most efficiently, while maintaining the high quality of the core functions of teaching, learning and research. Each application for voluntary separation or early retirement was carefully considered on that basis.

It is expected that these financial plans will ensure that UCT can invest at least R150 million over the next five years in new strategic programmes, in line with the 2020 Vision. Much of the funding for new strategies comes from the reserves generated through accumulating annual surpluses, and not from the operating costs that are being cut. This eroded surplus is what the austerity measures aim to address.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
State appropriations: subsidies & grants (R m's)	684	776	903	1 002	1 027	1 069	1 104	1 122	1 172	1 226
State appropriations: subsidiy for zero fees (R m's)									135	140
Subsidy increases	6.9%	13.5%	16.4%	11.0%	2.5%	4.1%	3.3%	1.6%	4.4%	4.7%
CPI History: annual average per StatsSA	9.35%	6.04%	3.37%	6.41%	5.71%	5.30%	5.32%	5.18%	7.07%	4.50%
Unweighted student FTEs	17 716.582	18 853.745	19651.610	19 846.792	20 441.646	20 041.624	20 055.492	20 777.22699	22 137.101	Not available
Subsidy per unweighted FTE (R's)	R38 608	R41 159	R45 950	R50 487	R50 241	R53 339	R55 047	R54 001	R52 920	
Increase/ (Decrease) in subsidy per unweighted FTE	3.82%	6.61%	11.64%	9.87%	-0.49%	6.17%	3.20%	-1.90%	-2.00%	

SUBSIDY INCREASES VERSUS CONSUMER PRICE INDEX (CPI) - 2008-2017

Many of the strategies contained in the 2020 Vision will not require additional financial resources, but rather changes in approach, structures and practices. UCT anticipates that the alignment of the plan with the priorities of the Department of Higher Education and Training (DHET) – for research development, teaching development and funding the pipeline for future black academics – will allow UCT to draw on the ring-fenced development grants that DHET makes available.

FINANCIAL ASSISTANCE AND MERIT SCHOLARSHIPS PROVIDED BY NSFAS AND UCT ONLY (EXCLUDES EXTERNAL BURSARIES) FROM 2008 TO 2017

YEAR	2008	2012	2017
Financial aid below NSFAS (SA students only)	2 248	2 739	3 398
GAP (Financial aid) (SA only)	0	613	1 133
UCT scholarships academic merit	1 514	1 436	1 224
(SA and international students)			
Total number receiving NSFAS and UCT funding	3 762	4 788	5 755
SA undergraduates	12 926	14 376	15 214
Total undergraduates (SA and International)	15 264	17 621	17 833
			10-14
% Financial aid funded of SA undergraduates	17%	22%	30%
Total funded as % of total undergraduates	25%	27%	32%
			1
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Externally generated research funding

Research funding for 2017 amounted to R1.568 billion, composed of contract income (R1.090 billion), grants (R361 million) and donations (R119 million). In 2008 total research income amounted to R613 million, of which R437 million comes from contracts, R128 million from grants and R48 million from donations. In total this represented an increase of 150% since 2008. The National Research Foundation remains UCT's single biggest funder of grants, standing at R346 million in 2017. Contract income is sourced from both local and foreign funders, with the US the biggest foreign funder (especially the National Institutes of Health and the Bill & Melinda Gates Foundation). The Medical Research Council and the Department of Science and Technology are UCT's biggest local funders.

Special projects towards self-sustainability

The changing financial landscape makes it clear that innovation has become essential in managing the effects of declining revenue streams. Financial sustainability is one of the key initiatives in UCT's 2020 strategic planning framework. It requires the institution not only to adhere to sound financial practices, but also to explore and develop new sources of income, including donor funding. In addition, the university must help ensure the long-term sustainability of the higher education system as a whole. Financial sustainability objectives include:

- managing the net reduction of operational costs
- developing diversified revenue streams and funding sources
- developing new business models for future financial sustainability
- establishing systems for rewarding 'opportunity spotting' at all levels

- strengthening technology transfer and the Intellectual Property office and investing in spin-out companies
- increasing the UCT Foundation endowments through the Distinguishing UCT Campaign
- working with other universities to advise and lobby the government and business on higher education funding and fee systems
- reviewing the investment policy regarding endowments, with a focus on the environmental and social impact of these investments.

From 2015, the appointment of Mr Ashley Francis, the new Executive Director Finance, gave renewed impetus to commercial and entrepreneurial thinking. A commercial development unit was created in the Finance Department, to make UCT less dependent on the state and on fee income.



Additional funding is derived from two hotels; the Conference Management Centre, which hosts conferences on and off campus; and a more streamlined commercial letting operation. A new state-of-theart conference centre, currently under construction at the Graduate School of Business, will provide additional income when it is launched. There are plans to improve food sales on campus as a commercially viable project; and the university is examining the possibilities of income from appropriate advertising on the Jammie Shuttles, and other assets, in a tasteful and aesthetically pleasing manner. Increased rental of residences for vacation accommodation will help cover the costs of much-needed residence expansion.



The essential role of fundraising and giving in higher education

Donor funding is obviously a vital income component. A major part of the Vice-Chancellor's responsibility is to raise funds for the university.

UCT's endowment comprises designated and undesignated endowment funds, with a collective portfolio of about 565 funds. The designated endowment has a total investment value of about R2.5 billion, while the undesignated endowment funds sit currently at about R500 million. The Distinguishing UCT campaign, which aims to grow both the general endowment and the respective endowments of key faculty priorities, was launched in 2016. The primary goal of the Distinguishing UCT campaign is to double the undesignated or free endowment from R500 million to R1 billion. Donors and alumni have, to date, pledged over R100 million towards the campaign. Over the past several years a growing number of UCT alumni have donated more than R1 million each to UCT; the largest gifts comprised one of R55 million, two of R25 million, and several of R10 million. Many alumni are not able to give major gifts, but through fundraising approaches such as the Annual Appeal are giving long-term, regular gifts to the university.

The Vice-Chancellor's Discretionary Fund has financed the bequest programme, which started with just 30 people indicating that they had included UCT in their wills, and now has enlisted about 300 people.

Most funds are raised from philanthropic foundations and enable operational costs to be covered for strategic university initiatives. For example, the African Climate Development Initiative (ACDI), the Schools Improvement Initiative (SII) and the Poverty and Inequality Initiative (PII) have been well supported by donor funding although they have also received university funds. A chair in ACDI has now been endowed for 15 years by a European foundation.

STRATEGIC FUNDRAISING INITIATIVES

Other strategic fundraising initiatives supported by donor funding (both local and international, from foundations, trusts, corporates, friends and alumni) during Dr Price's tenure have included:

- bursaries (undergraduate and postgraduate)
- Student Wellness Service
- researcher development programmes
- medical imaging research equipment and advanced electron microscopy
- African Paediatric Fellowship Programme
- Opera School
- Baxter Theatre Centre
- African Institute for Financial Markets and Risk Management
- Children's Institute
- Knowledge Co-Op
- Khayelitsha School Improvement Initiative and 100-UP

Several projects stand out for their enormous scale over the last decade. **The Building for the Neurosciences Institute** (artist's impression overleaf) will cost R113 million, about half of which has been raised from philanthropy, with R40 million from the Western Cape Provincial Health Department. One donor contributed R25 million to the building plus an additional R30 million to fund the research activities of the institute.

The Centre for Comparative Law in Africa was endowed by a Nigerian philanthropist with R55 million.

The Bertha Centre for Social Innovation and Entrepreneurship

received over R50 million from the Bertha Foundation over the last seven years. In the same period the Rockefeller Foundation provided over R24 million.

The Hasso Plattner Institute for Design Thinking (operating costs and building) have been supported with donations of R90 million.

The Graduate School of Development Policy and Practice (recently renamed the Nelson Mandela School of Governance), will, if all goes to plan, be housed in a new iconic building which will also serve as a centre for memory to Nelson Mandela on the slopes of Table Mountain. A founding pledge of R270 million has been made towards this, conditional upon raising matching donations.

The Mastercard Foundation is providing more than 300 scholarships over a 10-year period to academically talented, economically



disadvantaged students from sub-Saharan Africa: 60 undergraduates and 240 postgraduates. The R700 million programme includes bursaries, mentoring, leadership development, and academic and life skills support. This fits in well with UCT's focus on developing African skills and knowledge, and the goal of expanding UCT's academic network on the continent to help solve global problems.

The Moshal Scholarship Programme has made 301 awards since 2010 at a cost of R23.3 million.

The Michael and Susan Dell Foundation has committed over R84 million for 375 students in the Dell Young Leaders programme for scholarship and student support.

The Jurgen Baathe Leadership Programme was established at UCT in March 2014 through a gift donated by Professor Klaus-Jürgen Bathe of Massachusetts (US). The programme's primary goal is to produce graduates with outstanding leadership qualities and a strong sense of social justice, who will go on to play leading and significant roles in business, government, industry and civil society in South Africa and on the African continent.

The university's alumni – some 150 000 alumni in 121 countries – are critical to the university's sustainability. UCT has increased its engagement with alumni through reunions, quarterly newsletters, meetings of chapters and the annual phonathon run by students. Between 2008 and 2018 the Vice-Chancellor travelled about six weeks a year meeting alumni and foundation presidents in many cities across the globe. During his term as Vice-Chancellor, Dr Price was directly involved in raising about R3 billion (averaging about R300 million a year).



Conclusion

In 2008 recurrent Council-controlled revenue totalled R1.306 billion. This more than doubled to R3.05 billion in 2017.

Pressure mounted over the past few years with lower per capita CPI increases in state funding, student protests and staff insourcing, among other factors, resulting in the institution operating in deficit territory at least for the five years since 2013.

Financial aid, bursaries and scholarships increased from R56 million in 2008 to R186 million in 2017, an increase of 232%.

The institution embarked on an austerity programme in 2016 to reduce UCT's operating costs by R120 million, which has gone a long way in reducing the university's deficits and creating greater cost consciousness.

Despite the pressures, the cost-containment measures have given rise to increased investment returns over the three years since 2015. In fact, the sum of the past three years' investment returns exceeded the investment returns of the five years prior.



UCT is in a stronger cash position than it has ever been before, but it is not advisable to hold back on capital expenditure and maintenance to the extent that it has over the last while – UCT has agreed to spend R75 million per year over the next five years to address the backlog in maintenance.

The DHET has allocated an additional R2.2 billion to the sector in 2018 and is committed to follow through in the short-term. The concern is whether the government will be able to sustain the same level of support into the future.

Commercial development is poised to reach great heights in the near



future and should go a long way towards turning the lingering deficits into sustainable surpluses. The changing financial landscape makes it clear, therefore, that innovation has become essential in managing the effects of declining revenue streams.

Financial sustainability is one of the key initiatives in UCT's 2020 strategic planning framework. It requires the institution not only to adhere to sound financial practices, but also to explore and develop new sources of income, including donor funding. In addition, the university must help ensure the long-term sustainability of the higher education system as a whole.

APPENDIX

Senior Leadership Group: July 2008–June 2018

DEPUTY VICE-CHANCELLORS 2008-2018

Institutional Innovation:

Professor Thandabantu Nhlapo: 2004-2014 Professor Francis Petersen: 2014-March 2017 Professor Hugh Corder: January 2017-January 2018 (acting) Professor Anton le Roex: February 2018-current (acting)

Research and Internationalisation:

Professor Danie Visser: 2008 (acting); 2009–2016 Professor Mamokgethi Phakeng: 2017–June 2018

Teaching and Learning:

Professor Daya Reddy: July 2008-March 2009 (acting) Professor Jo Beall: 2009-July 2011 Associate Professor Nan Yeld: 2011 (acting) Professor Sandra Klopper: 2012-2016 Professor Daya Reddy: 2017-January 2018 (acting) Professor Lis Lange: 2018-current

Transformation:

Professor Cyril O'Connor: 2008–March 2009 (acting) Professor Crain Soudien: April 2009–August 2015 Professor Anwar Mall: August 2015–2016 (acting) Professor Loretta Ferris: 2017–current

DEANS 2008 - 2018

Centre for Higher Education Development Professor Nan Yeld: 2003–2013 Associate Professor Suellen Shay: 2013–current Associate Professor Mbulungeni Madiba: March–June 2017 (acting)

Commerce:

Professor Melvin Ayogu: 2006–June 2009 Professor John Simpson: July 2009 (acting) Emeritus Associate Professor Michael Wormald: January-May 2010 Professor Don Ross: June 2010–October 2015 Professor Michael Wormald: May 2015–February 2016 (acting) Professor Ingrid Woolard: March 2016–April 2018

Engineering and the Built Environment:

Professor Francis Petersen: 2008–September 2014 Emeritus Professor Barry Downing: October 2014–June 2015 (acting) Professor Alison Lewis: June 2015–current

Graduate School of Business, Director:

Emeritus Professor Frank Horwitz: 2004-August 2009 Emeritus Associate Professor Thomas Ryan: March-June 2009 (acting) Professor Walter Baets: July 2009-July 2016 Professor Geoff Bick: June-December 2016 (acting) Associate Professor Mills Soko: 2017-June 2018 Associate Professor Kosheek Sewchurran: June 2018—current (acting)

Health Sciences:

Professor Marian Jacobs: 2006–2012 Professor Susan Kidson: January–July 2013 (acting) Professor Wim de Villiers: August 2013–March 2015 Professor Gregory Hussey: April 2015–August 2016 (acting) (The late) Professor Bongani Mayosi: September 2016–July 2018

Humanities:

Emeritus Professor Paula Ensor: 2004–2013 Professor Sakhela Buhlungu: 2014–January 2017 Associate Professor Harry Garuba: February–December 2017 (acting) Professor David Wardle: 2018 (acting)

Law:

Professor Hugh Corder: 2000–2008 Professor Pamela Schwikkard: 2009–2015 Professor Penelope Andrews: November 2015–current

Science:

Professor Kathy Driver: 2006–2010 Professor Anton le Roex: 2011–2017 Professor Susan Bourne: 2018 (interim)

EXECUTIVE DIRECTORS 2008 - 2018

Communication and Marketing

Gerda Kruger: 2009-current

Development and Alumni

Dr Jim McNamara: 2006-2013 Dr Russel Ally: 2013-current

Finance

Professor Enrico Uliana: 2000-2015 Ashley Francis: 2015-current

Human Resources

Khotso Raphoto: 2008-June 2010 Miriam Hoosain: August - December 2010 (acting); 2011-current

Information and Communications Technology

Dr Frederick Goldstein: 2008–January 2009 (acting) Izak Janse van Rensburg: February 2009–current

Properties and Services

John Critien: 2001–November 2013 Andre Theys: December 2013–May 2017 Roland September: 2017–current (acting) **Research** Dr Marilet Sienaert: 2003-current

Student Affairs Dr Moonira Khan: 2005-current

University Libraries Joan Rapp: 1998–October 2011 Gwenda Thomas: November 2011–current

REGISTRARS 2008-2018

Hugh Amoore: 1987–2015 Royston Pillay: 2016-current

A-rated researchers at UCT in 2018

TITLE	FIRST NAME	SURNAME	DEPARTMENT
Professor	lgor	Barashenkov	Mathematics and Applied Mathematics
Emeritus Professor	Eric	Bateman	Medicine
Emeritus Professor	William	Bond	Biological Sciences
Professor	Frank	Brombacher	Pathology
Emeritus Professor	Doug	Butterworth	Mathematics and Applied Mathematics
Professor	Kelly	Chibale	Chemistry
Emeritus Professor	David	Chidester	Religious Studies
Professor	Anusuya	Chinsamy-Turan	Biological Sciences
Emeritus Professor	Jean	Cleymans	Physics
Emeritus Professor	John	De Gruchy	Graduate School in Humanities
Professor	Keertan	Dheda	Medicine
Emeritus Professor	George	Ekama	Civil Engineering
Emeritus Professor	George	Ellis	Mathematics and Applied Mathematics
Professor	Jill	Farrant	Molecular and Cell Biology
Emeritus Professor	Michael	Feast	Astronomy (SAAO)
Emeritus Professor	Gerd	Gade	Biological Sciences
Professor	Bruce	Hewitson	Environmental and Geographical Science
Emeritus Professor	George	Janelidze	Mathematics and Applied Mathematics
Emeritus Professor	Harold	Kincaid	Economics
Professor	Hans-Peter	Kunzi	Mathematics and Applied Mathematics
(The late) Professor	Bongani	Mayosi	Medicine
Professor	Rajend	Mesthrie	English Language and Literature
Professor	Valerie	Mizrahi	Pathology / IDM
Emeritus Professor	Timothy	Noakes	Human Biology
Emeritus Professor	Gerald	Nurick	Mechanical Engineering
Emeritus Professor	Lionel	Opie	Medicine
Professor	Chris	Reason	Oceanography
Professor	Daya	Reddy	Mathematics and Applied Mathematics
Professor	Don	Ross	Economics
Professor	Peter	Ryan	Biological Sciences
Professor	Ed	Rybicki	Molecular and Cell Biology
Distinguished Professor	Philippe-Joseph	Salazar	Rhetoric Studies
Emeritus Professor	Clifford	Shearing	Public Law
Professor	Mark	Solms	Psychology
Professor	Dan	Stein	Psychiatry and Mental Health
Professor	Andrew	Taylor	Astronomy
Professor	Jack	Van Honk	Psychiatry and Mental Health
Emeritus Professor	Brian	Warner	Astronomy
Associate Professor	Heribert	Weigert	Physics
Emeritus Professor	Patricia	Whitelock	Astronomy (SAAO)
Professor	Robert	Wilkinson	Medicine
Emeritus Professor	Robin	Wood	Medicine

SARChI Chair holders in 2018

NAME OF SARCHI CHAIR HOLDER	NAME OF RESEARCH CHAIR
Professor Stefan Barth	Cancer Biotechnology
Professor Haroon Bhorat	Economic Growth, Poverty and Inequality: Exploring the Interactions for South Africa
Professor Jonathan Blackburn	Applied Proteomics and Chemical Biology
(The late) Professor Dee Bradshaw	Minerals Beneficiation
Professor Frank Brombacher	Immunology of Infectious Diseases in Africa
Professor Claude Carignan	Extragalactic Multi-Wavelength Astronomy (SKA)
Professor Kelly Chibale	Drug Discovery
Professor Aqiel Dalvie	SA-Swiss Bilateral Chair in Global Environmental Health
Professor Paul Groot	Fast Transients and Gravitational Waves Counterparts
Interim Chair to be appointed	Reaction Engineering
Professor Tania Douglas	Biomedical Engineering and Innovation
Professor Jill Farrant	Systems Biology Studies on Plant Desiccation Tolerance for Food Security
Professor Anthony Figaji	Clinical Neurosciences Research
Professor Carolyn Hamilton	Archive & Public Culture
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