



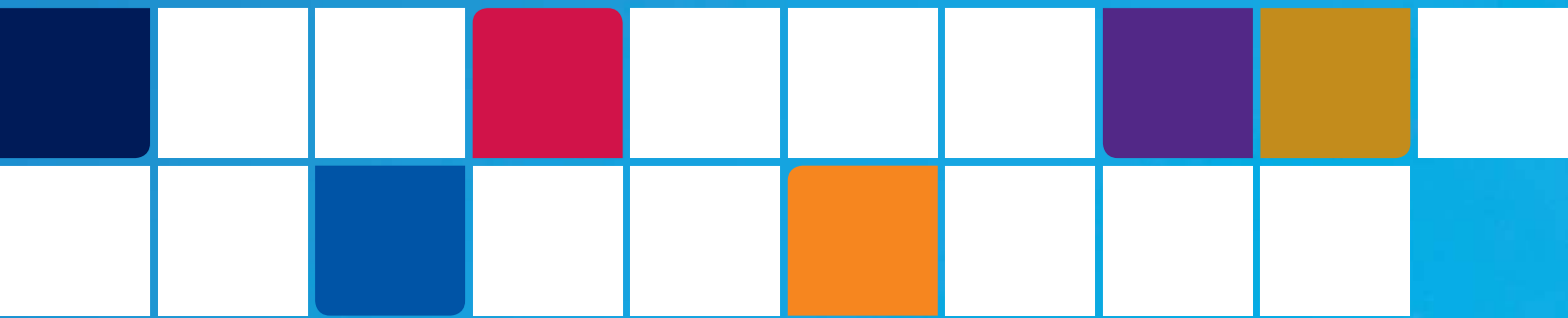
Our 2021 Journey

UNIVERSITY OF THE FREE STATE

*Inspiring excellence, transforming lives
through quality, impact, and care.*



UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



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WHO WE ARE





Prof Bonang Mohale
UFS Chancellor

MESSAGE FROM CHANCELLOR

This has been a truly challenging year for universities across the globe. In the wake of the COVID-19 pandemic, universities have been tested to continue pivoting to fully remote or hybrid learning and to face the financial constraints resulting from the pandemic.

A guiding light on this journey has been the UNESCO Report released in May 2021, titled *Thinking Higher and Beyond: Perspectives on the Futures of Higher Education to 2050*. It revealed that values such as respect, empathy, equality, and solidarity should be at the core of future higher education institutions and their missions. It also suggested that higher education institutions should be at the forefront of tackling the climate crisis, the digital divide, and other global challenges through knowledge production and technology incubation and transfer. Four key requirements for higher education were highlighted, namely to take active responsibility for developing the potential of all humans; to promote well-being and sustainability, oriented towards justice, solidarity, and human rights; to draw strength from interculturality and diversity, respecting cultures and identities; and creating spaces for dialogue and to create and uphold interconnectedness, forging collaborations

between local and global communities, and bonding higher education with other levels of education, including non-formal and informal learning.

It has been encouraging to see these ideals find practical application at the UFS through various initiatives, policies, and strategies, and in the process reflecting the values of respect, empathy, equality, and solidarity. As an institution, we continue striving to equip our next crop of leaders with a higher purpose, palpable ethical leadership, a demonstrable set of values, thereby creating an unambiguous cohesive culture – a culture in which they feel needed and wanted and in which they feel free to speak their mind without any fear of retribution or reprisal.

It remains a privilege to be involved with the shaping of young minds, helping them to discover their own vast potential in order to better represent those without a voice, releasing better humans and deepening understanding in the process. To see them graduate from humankind to kind humans, from taking to giving, inspired to deeply care for one another while developing into meaningfully connected, constructive citizens who are true catalysts of change.



Dr Willem Louw
Council Chairperson
(1 January 2021 to
30 September 2021)

MESSAGE FROM COUNCIL CHAIR

The current South African and wider global context represent a time of unique and significant challenges for the higher education sector. Challenges, not only in terms of dealing with the effects of a world-wide pandemic, but also of adapting to a rapidly altering teaching and learning environment and finding sustainable funding solutions for our public universities and tertiary institutions at a time when our national fiscus is under severe pressure. The UFS' ability to live up to its motto of **inspiring excellence and transforming lives through quality, impact, and care** has been

inspiring, as it displayed forward thinking in finding innovative solutions to face these challenges.

We are living in an era where experience and sensibility should find common ground with courageous decision-making and bold ambition to break new ground for the education sector. It is certainly a privilege to be part of the UFS journey at this point in time.

Our university's physical location has always informed its purpose. Situated in the centre of

MESSAGE FROM RECTOR AND VICE-CHANCELLOR

The year 2021 marked the second year of the COVID-19 pandemic, and for us as a university community, was characterised by a continued and heartening display of adaptability, tenacity, resourcefulness, and innovation on all fronts in order to not only survive but *thrive* in an altered and ever-changing higher education environment. It was a year in which we were called upon to continue to find new ways to learn, new ways to teach, new ways to pursue research, new ways to care for students and staff, and new ways to operate effectively.

It was also a year typified by a renewed focus on collaboration with valued industry and public-sector partners, allowing us to continuously review and renew our curricula and operating procedures. It also enabled us to stay abreast of technological developments and new teaching and learning trends to stay relevant in the global world of work – which remains in constant flux. The COVID-19 pandemic has proven that no institution or individual can take on the economic, environmental, social, and technological challenges of our world alone. But the COVID-19 pandemic has also provided an opportunity for us to rethink and

re-imagine higher education and how we can contribute to a more inclusive, cohesive, fairer, and sustainable future.

We have started the engagement process towards developing a fully consultative new vision and strategic plan for the university as from 2023. It will be marked by a continued focus on *Visibility and Impact* and framed by the United Nations Sustainable Development Goals. The UFS sees itself as a global citizen, with a definite society-focused role. Our aim is to deliver students who are not only good workers and critical thinkers, but good citizens, who are able to make a positive difference in their communities.

I am humbled and honoured by the UFS Council's decision in 2021 to appoint me as Rector and Vice-Chancellor for a second five-year term. It remains a great privilege to lead one of the greatest universities in the country. With our incredible staff, students, and valued stakeholders, I look forward to continuing building a strong institution that belongs to everyone, bringing quality, impact and care to our wider community, our country and our world.



Prof Francis Petersen
UFS Rector and
Vice-Chancellor

the country, the three campuses of the University of the Free State are surrounded by largely rural communities facing unique developmental challenges. The transforming role that the UFS is playing in a variety of sectors to address these challenges through innovation, education, practical knowledge application and interventions, remains one of its most valuable functions. During 2021, our institution was once again a visible force in our communities, having a real impact and making a positive difference as a caring university community fulfilling our society-focused role.

As an institution, the UFS has been true to its vision of being a research-led, student-centred, and regionally engaged university that contributes to development and social justice through the production of globally competitive graduates and knowledge.

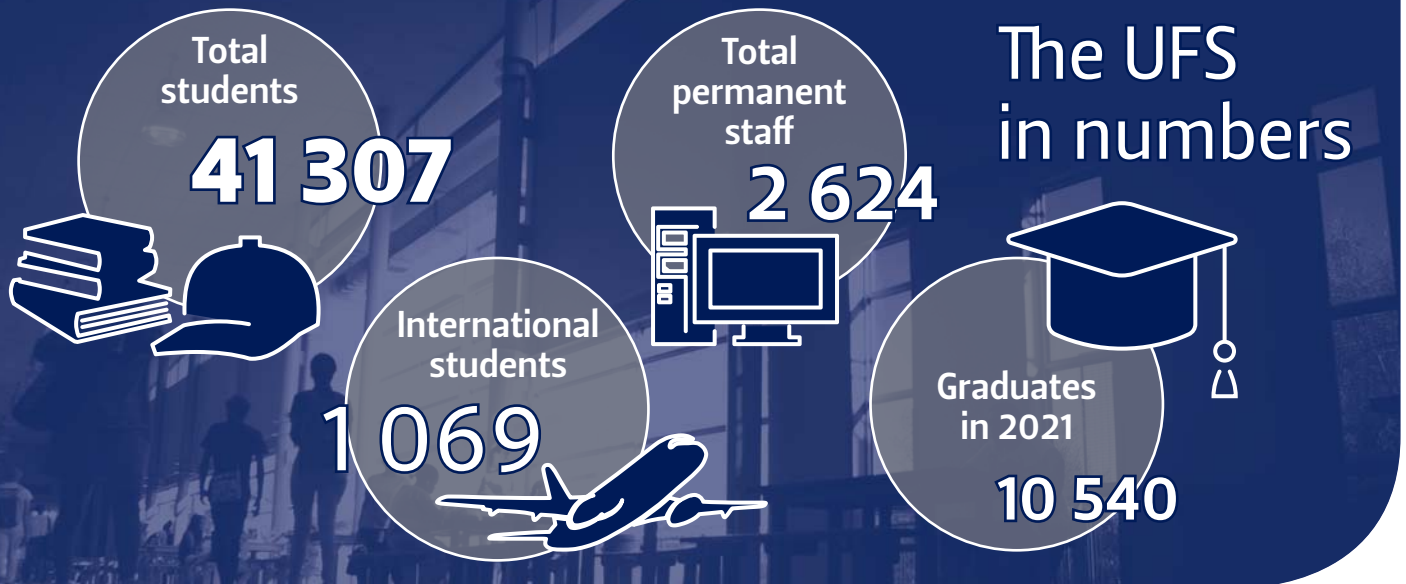
We approach the future with confidence and determination to play a growing, prominent role in the national and international educational spheres – increasing our visibility and impact in our surrounding communities with each passing year.



Mr David Noko
Council Chairperson
(1 October 2021 to present)

OUR STORY

The University of the Free State creates opportunities and growth through leading learning and teaching, focused research, and impactful engagement with society. Situated in the heart of South Africa, our character of caring and diversity translates into an outstanding university experience.



Faculties



Our campuses



The **Bloemfontein Campus**, situated in the capital of the Free State, is the oldest and biggest of the three campuses. Undergraduate and postgraduate studies in all seven faculties are presented here. All campus facilities are available in one location, characterised by unique architecture and artworks, modern sports facilities, as well as eco-friendly waterwise gardens.

Braille-guided areas, ramps, and elevators for visually and mobility impaired students contribute to a culture of care and kindness.



The vibrant **Qwaqwa Campus** in the picturesque Eastern Free State serves a rapidly growing number of rural students from the immediate area and surrounding provinces.

The campus has a strong focus on socio-economic development, informed by a rural context. Programmes, underpinned by a strong research agenda, focus on identifying the best possible strategies to create jobs and stimulate economic growth in this area.



Our **South Campus** provides alternative access to higher education for promising students who did not obtain the required marks in their final school examinations. Several programmes are in place that offer students the opportunity to access higher education.

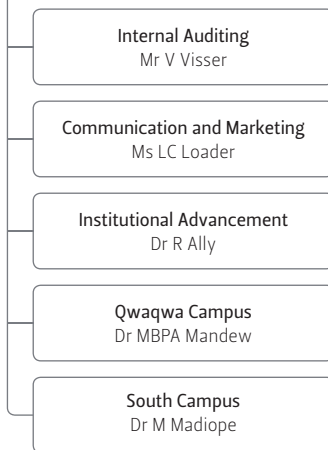
This is also the open, distance and e-learning (ODEL) hub of the university.



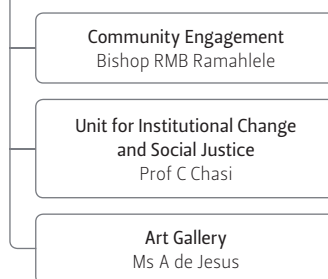
UNIVERSITY LEADERSHIP



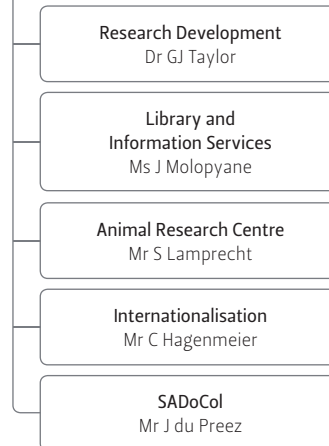
Rector and Vice-Chancellor
Prof FW Petersen



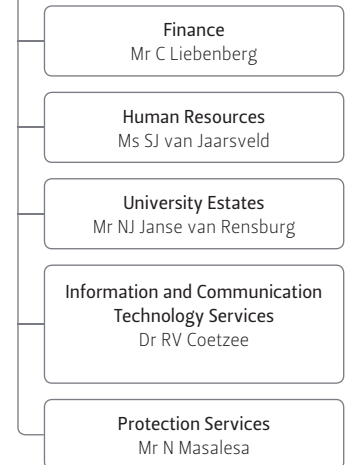
Vice-Rector:
Institutional Change, Strategic Partnerships and Societal Impact
Dr M Qhobela



Vice-Rector:
Research and Internationalisation
Prof RC Witthuhn



Vice-Rector: Operations
Prof P Naidoo



Strategic Goals



Goal 1:
Improve **student success** and well-being.



Goal 2:
Renew and transform **the curriculum**.



Goal 3:
Increase UFS contribution to local, regional, and global **knowledge**.



Goal 4:
Support development and social justice through **engaged scholarship**.



Goal 5:
Increase the efficiency and effectiveness of **governance** and **support systems**.



Goal 6:
Achieve **financial sustainability**.



Goal 7:
Advance an **institutional culture** that demonstrates the values of the UFS.



Vice-Rector: Academic
Prof EL van Staden

Centre for Teaching and Learning
Prof FJ Strydom

Directorate for Institutional Research and Academic Planning (DIRAP)
Ms L Griesel

Faculty of Economic and Management Sciences
Dean: Prof HJ Kroukamp

Faculty of Education
Dean: Prof L Jita

Faculty of Health Sciences
Dean: Prof GJ van Zyl

Faculty of Natural and Agricultural Sciences
Dean: Prof D Vermeulen

Faculty of Law
Dean: Prof J Mubangizi

Faculty of the Humanities
Dean: Prof H Hudson

Faculty of Theology and Religion
Dean: Prof R Letšosa

Kovsie Phahamisa Academy
Adv S Hyland

Academy for Multilingualism



Executive Director: Student Affairs
Mr T Hlaseho

Student Affairs
Dr WP Wahl

Student Counselling and Development
Dr M Dunn-Coetzee

KovsieSport
Mr DB Prinsloo

Housing and Residence Affairs
Mr QT Koetaan

Health Services
Sr R Johnson



Registrar
Mr NN Ntsababa

Legal Services and Compliance
Adv M Mateta

Student Academic Services
Mr A Naidoo

Governance and Policy
Ms E van Pletzen

Student Recruitment Services
Ms NE Mbadi

Meeting Administration
Ms EC Bezuidenhout

STUDENT LEADERSHIP



Jerry Thoka
ISRC President
SRC President: Bloemfontein Campus



Sifiso Mofokeng
SRC President: Qwaqwa Campus



Mokgomotsi Dinoke
SRC President: South Campus

INSTITUTIONAL EXCELLENCE

Increasing the efficiency and effectiveness of UFS governance and support systems remains a key strategic goal. During 2021, the management of the policy environment has improved dramatically, and at the end of the year the UFS greatly exceeded its target, with almost 70% of UFS policies having been revised since January 2018.

In 2021, the UFS invested in a dedicated structure and committee to focus predominately on third-stream income to contribute to the overall sustainability of the UFS.

The implementation of an institutional Business Intelligence (BI) strategy for the UFS began in 2021. This is a large-scale project that will change the way the UFS engages with data. This system will integrate data from multiple sources, expand the tools and

skillsets of analysts, and will make real-time data available at multiple levels for effective use by decision makers. The BI strategy will not only improve data integration, but will widen and accelerate access to data.

The UFS was the only South African university that managed to improve its position on the list of the Centre for World University Rankings for the period 2021/2022, when it moved up from ninth to eighth place.

CUADS celebrates 20 years



CUADS staff from the Bloemfontein, Qwaqwa, and South Campuses

The Centre for Universal Access and Disability Support (CUADS) celebrated its 20th year of existence. Established in 2001, it has grown and expanded over the years, and today has offices on the Bloemfontein, South and Qwaqwa campuses, catering for students with visual, mobility and hearing impairments, as well

as learning difficulties and mental health conditions. Supplementary to the academic support offered to students with disabilities, CUADS play an increasingly vital role in the development of awareness and advocacy for persons with disabilities across all three campuses of the UFS.

Interdisciplinary Centre for Digital Futures prioritises collaboration across study fields



*Prof Katinka de Wet,
medical sociologist in the
Department of Sociology*



*Herkulaas Combrink,
data and medical scientist
in the Faculty of Economic
and Management Sciences*

In an effort to find multidisciplinary solutions to complex societal problems, the UFS established an Interdisciplinary Centre for Digital Futures (ICDF) in 2021. The two interim co-directors are Prof Katinka de Wet, medical sociologist in the Department of Sociology, and Herkulaas Combrink, data and medical scientist in the Faculty of Economic and Management Sciences. The ICDF is a collaborative, co-creative, synergistic space – where social scientists, natural scientists, data scientists, engineers, health scientists, etc., collaborate, learn, and interact with industry, the private sector, government, and community partners to provide a unique intellectual ecosystem that drives the digital future responsibly and critically for the benefit of society.

Academy for Multilingualism established

The Academy for Multilingualism aims to promote Sesotho, isiZulu, and Afrikaans on institutional and social levels through various academic and community-based projects and initiatives.

The academy has started with the process of generating multilingual academic aids, not only to support learning, but also to create a more representative space on the university's campuses. In close collaboration with the university's Centre for Teaching and Learning, as well as the different language departments on the campuses, it will facilitate multilingual academic glossaries, abstract translations, voice-overs for lessons, and tutorials.

*Dr Peet van Aardt,
Interim Caretaker
of the Academy for
Multilingualism in 2021*



2021 in
numbers:



43 regulatory
documents
approved



14 institutional
policies approved
by UFS Council

Prof Bonang Mohale appointed as President of BUSA



Prof Bonang Mohale was officially inaugurated as the eighth Chancellor of the UFS on 4 November 2021, after his inauguration had to be postponed because of COVID-19 restrictions on social gatherings.

UFS Chancellor, Prof Bonang Mohale, was elected to lead Business Unity South Africa at the end of 2021.

"Prof Mohale's extensive expertise and experience in leadership roles, contributions to the growth of many multinational companies, and involvement in education and the business sector, will undoubtedly strengthen the ties between various sectors and civil society, and further contribute to the stabilisation and growth of South Africa," said Prof Francis Petersen in his congratulatory letter to Prof Mohale.

Library and Information Services staff leaders in their field




Nthabiseng Kotsokoane



Charlie Molepo

Nthabiseng Kotsokoane, Assistant Director in the UFS Library and Information Services, was appointed as Chairperson of the International Federation of Library Associations and Institutions (IFLA) Regional Council. IFLA is the leading international body representing the interests of library and information services and their users around the world.

Charlie Molepo, Deputy Director: Research and Scholarly Communications in the UFS Library and Information Services, was elected as President of the Library and Information Association of South Africa (LIASA).



Prof Pearl Sithole becomes member of Pontifical Academy of Social Sciences

Social scientist and Vice-Principal: Academic and Research on the Qwaqwa Campus, Prof Pearl Sithole, was appointed by Pope Francis as a member of the Pontifical Academy of Social Sciences for her stellar work in social sciences. The Pontifical Academy of Social Sciences was established by Pope John Paul II in 1994 with the aim of promoting the study and progress of the social sciences, primarily economics, sociology, law, and political science. Academicians are appointed by the Pope on the basis of their competencies in the social sciences and their moral integrity.

Dr Millard Arnold contributes to leading publications

Dr Millard Arnold, UFS Council member and senior consultant at Bowman Gilfillan, drew on his experience as a journalist and later as a seasoned leader and keynote speaker to participate in the book: *The Book Every Upcoming, New, and Seasoned Leader Needs to Read* –

Lessons From Leading Business Minds and Thought Leaders. Dr Arnold also contributed a chapter titled, ‘Poverty, Inequity and Decolonisation: Are Business Schools Responsive to the Challenge?’ in a book by Chris Brink, *The Responsive University and the Crisis in South Africa*.



UFS STAFF WIN INTERNATIONAL COMMUNICATION AND MARKETING AWARDS



Barend Nagel



Moeketsi Mogotsi



Nomonde Mbadi



Rulanzen Martin



Lelanie de Wet



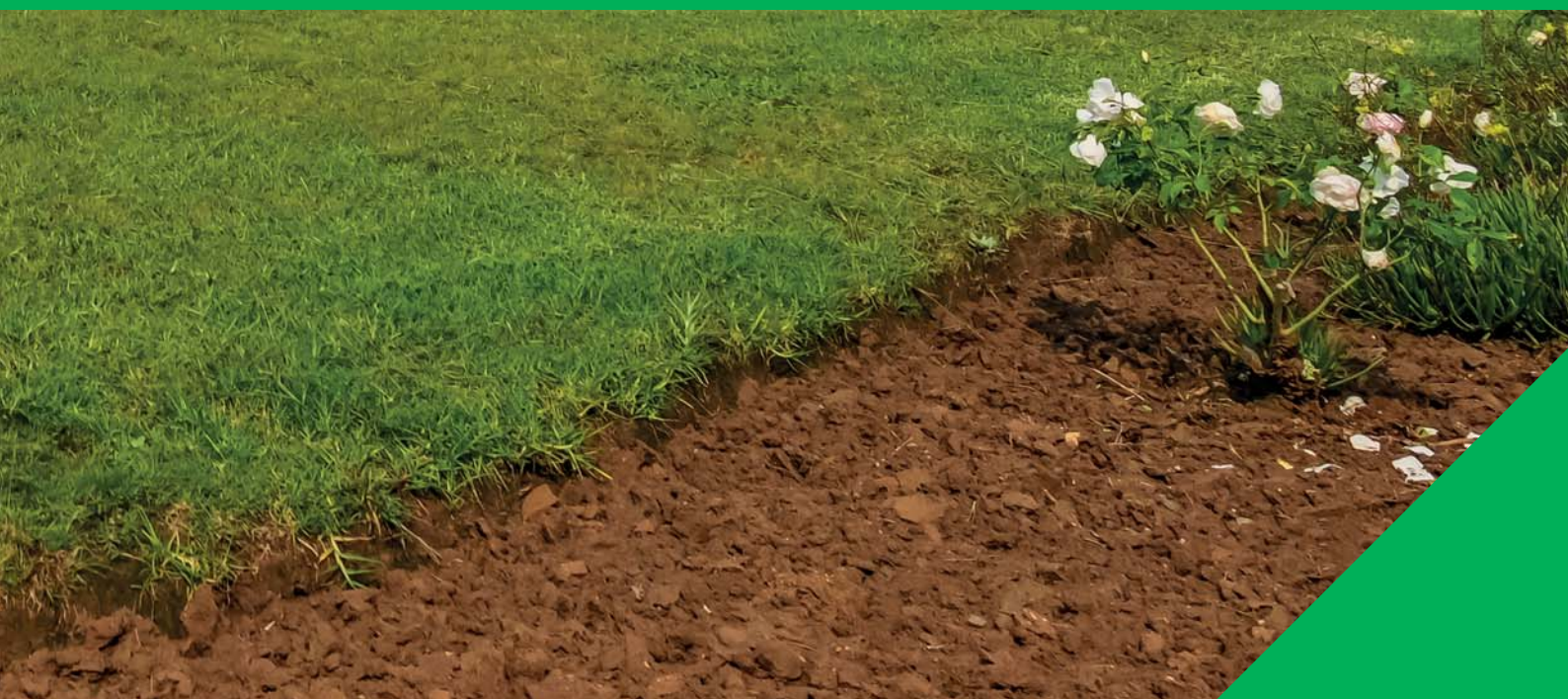
Ilze Bakkes

The departments of Communication and Marketing, and Student Recruitment Services won five international and eight national awards for projects implemented during 2020 and 2021. The International Association of Business Communicators (IABC), which recognises and awards excellence in strategic communication worldwide, evaluated entries at 11 global sites. Among the 482 entries received from 22 countries, 18 awards were presented to South African entries, of which 5 were awarded to entries from the UFS. UFS staff members also won six awards at the 2021 Marketing, Advancement and communication in Higher Education (MACE) Excellence Awards.





LEADING LEARNING



COMMITMENT TO HIGH-QUALITY TEACHING AND LEARNING

Learning and teaching at the UFS are undergoing substantial transformation and realignment, cognisant of the changing realities and needs of a high-performance 21st century African university that is globally, nationally, and continentally relevant. In the UFS context, key challenges in 2021 included access for the success and relevance of our students, technological innovation, an ongoing pandemic, and issues around inclusion, equity, and social justice, and ensuring an operational and support structure that will facilitate the aforementioned.

While preparing for a likely scenario where blended teaching and learning takes precedence over traditional face-to-face lectures, the UFS will focus on what it can learn from the quality and integrity of academic work that took place during

emergency remote teaching and learning to inform future practice. Capacity for data analytics was improved during 2021 through webinars and training, promoting an evidence-based institutional culture.

Prof Hendri Kroukamp receives international recognition

Prof Hendri Kroukamp, Dean of the Faculty of Economic and Management Sciences, was appointed to the International Commission on the Accreditation of Public Administration Education and Training (ICAPA) in January. The commission works towards promoting and sustaining accountability and transparency in public administration.

Prof Kroukamp received a further international accolade when he was selected as the 2021 recipient of the Donald C Stone Award from the International Association of Schools and Institutes of Administration (IASIA). The award pays tribute to individuals who display excellence in leadership and enhance the image of the administration profession.



Adelheid von Maltitz becomes Absa L'Atelier Ambassador

Adelheid von Maltitz, Lecturer in the Department of Fine Arts, was named winner in Group A – which includes Mozambique, South Africa, Uganda, and Zambia – in the 2021 Absa L'Atelier art competition, earning her the title of Absa



L'Atelier Ambassador. Benefits that come with the ambassadorship are extensive training opportunities with leading international art experts, mentorship from a leading local authority in the visual art industry, and the opportunity of having a solo exhibition within the next five years at the Absa Gallery in Johannesburg.

Lyle Markham on SA Board for People Practices

Lyle Markham, Academic Head and Lecturer in the Department of Industrial Psychology, was elected as board member of the South African

Board for People Practices (SABPP). The SABPP works towards professionalising the human resources function to ensure that it becomes an increasingly recognised and respected profession.



Prof Melanie Walker elected as HDCA President



Prof Melanie Walker, Distinguished Professor in the Centre for Development Support at the University of the Free State (UFS), has been elected as President of the Human Development and Capability Association (HDCA). This is the first time that the HDCA president is from the Global South. The HDCA is an international association for academics and practitioners who seek to create an intellectual community around the ideas of human development and the capability approach and relate these ideas to development practices and the policy arena.

2021 in numbers:

85%

institutional success rate



56

more doctoral graduates



235 more master's graduates



23%

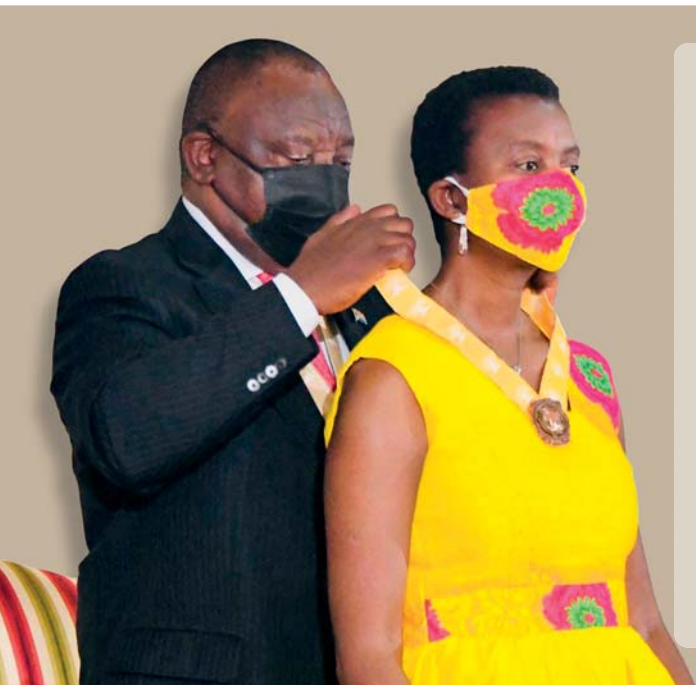
increase in graduate employment rate



12%

improvement in success rate from 2010 to 2021





Dr Ngwenya bestowed National Order of Baobab

Dr Hlamani Judith Ngwenya, Lecturer in the Centre for Sustainable Agriculture, received the Order of the Baobab in honour of her work in sustainable agriculture and community empowerment. The Order of the Baobab is one of six national orders and recognises South African citizens who contributed to community service, business and the economy, science, and technological innovation.

Prof van Coller co-winner of prestigious prize

Prof Hennie van Coller, former Distinguished Professor in the Department of Afrikaans and Dutch, German and French, received the Jan H Marais Prize for an outstanding contribution to Afrikaans as scientific language, for his high-quality Afrikaans scientific work and publications. Prof Van Coller boasts a formidable professional publication record as literary scientist, but is also a known poet, translator, and prose author.



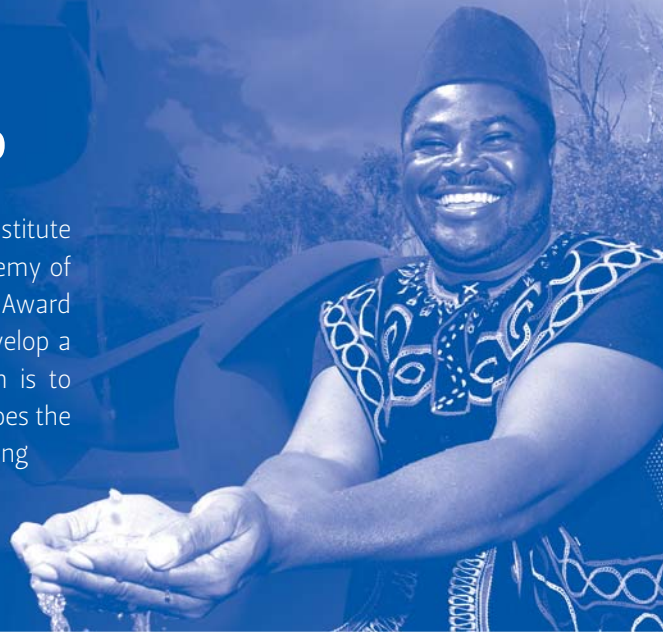
Prof Allen-Spies receives Stals Prize for Art Science



Prof Janine Allen Spies, Associate Professor in the UFS Department of Fine Arts, was recognised by her peers and fellow academics when she was awarded the Stals Prize for her valuable role as visual artist, academic, mentor, lecturer, activist, and supporter of art.

Prof Atangana elected to prestigious TWAS fellowship

Prof Abdon Atangana, Professor of Applied Mathematics in the Institute for Groundwater Studies, was elected a fellow of The World Academy of Sciences (TWAS). He also received the World Academy of Sciences Award for Mathematics. Prof Atangana is known for his research to develop a new fractional operator, the Atangana-Baleanu operator, which is to model real-world problems. With this operator, he not only describes the rate at which something will change, but also account for disrupting factors that will help to produce better projections. His models can advise people drilling for water by predicting how groundwater is flowing in a complex geological formation.



Mutshidzi Mulondo among M&G influential young South Africans



Mutshidzi Abigail Mulondo, Public Health Lecturer and PhD candidate in the Faculty of Health Sciences, was recognised as one of the 2021 Mail & Guardian 200 Influential Young South Africans for the work she did around promoting health education and preventing diseases through various forms of awareness in communities.

Computer Science lecturers win best paper award

Two lecturers in the Department of Computer Science and Informatics, Dr Pakiso Khomokhoana and Prof Liezel Nel, authored and presented a paper that received the best paper award at this year's 50th Annual Conference of the Southern African Computer Lecturers' Association (SACLA).



Prof Liezel Nel



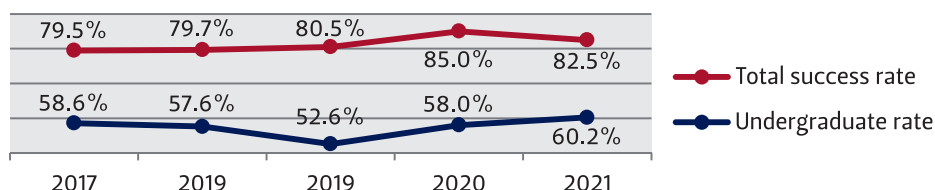
Dr Pakiso Khomokhoana

STUDENT SUPPORT FOR STUDENT SUCCESS

The holistic student support initiatives offered at the UFS continued to be a vital contributor to the high student success rates recorded in 2021. Support ranges from assisting with very basic needs by providing food security and psycho-social support through the No Student Hungry Bursary Programme, to the academic success initiatives developed by the Centre for

Teaching and Learning, which have earned the UFS international recognition. These include language and literacy development and well-supported tutorial programmes. Supplementing this, are programmes offering psychological as well as peer support, aimed at looking after students' mental health needs and developing leadership skills.

Student success rates: 2017 – 2021



2021 in numbers

72,2%
student participation in
governance structures



66%
student participation in
service learning

0
academic days suffered
due to unrest on campuses



4% increase in student
perceptions of successful graduate
attributes development

Plant Sciences award

Wilku Meyer, PhD Botany student, was the co-recipient of the Junior Captain Scott Memorial Medal for Plant Sciences, awarded every second year by the South African Academy for Science and Arts for the best MSc dissertation awarded at a South African university.



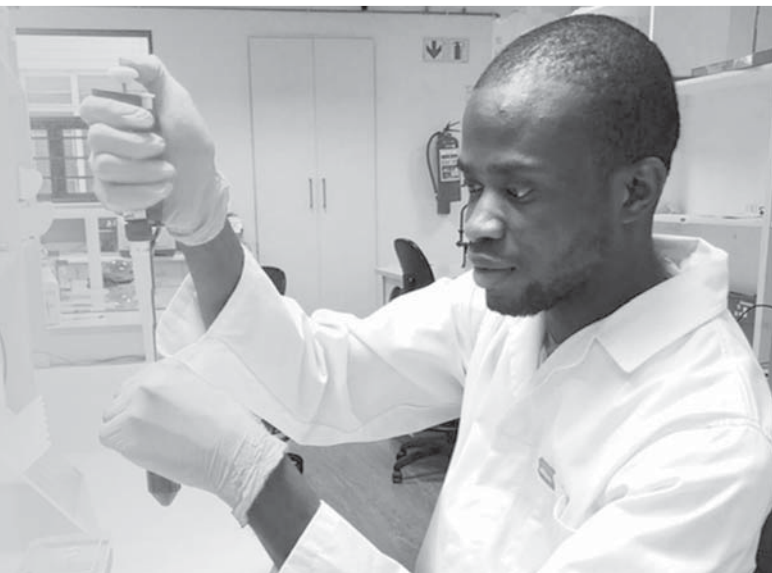


Miss Free State 2021

Rofhiwa Fatima Galatia, a BCom Accounting student, was crowned Miss Free State 2021. Rofhiwa is also a UFS athlete and co-founder of Immeasurable Women – a non-governmental organisation (NGO) that is all about women and community upliftment.

FameLab Winner

Abdullahi Jamiu, who is working on his master's degree in Microbiology in the Department of Microbiology and Biochemistry, was announced as the FameLab winner at the Central Regional Heat and represented the region at the national semi-finals. The FameLab competition is coordinated by the South African Agency for Science and Technology Advancement, the British Council, and Jive Media Africa.



Graduate Attributes

A graphic illustration of how graduate attributes should be mutually reinforcing and integrated with the development of academic competence in specific disciplines. The four attributes outlined in red are directly aligned with the core research skills that need to be developed at undergraduate level to prepare students for postgraduate research projects.

National Animal Science awards



The Department of Animal Science at the University of the Free State (UFS) walked away with numerous awards at the 52nd congress of the South African Society for Animal Science (SASAS). Among the winners were **Ofhani Mavhungu**, **Carina le Roux**, and **Andries van der Merwe**, who won the SASAS national student quiz (pictured here

with Senior Lecturer, Dr Foch de Witt). Van der Merwe also received the SASAS Student Postgraduate Merit Award as well as the Animal Feed Manufacturers Association (AFMA) Student of the Year Award as the most outstanding final-year student in Animal Nutrition, while Mavhungu was awarded AFMA's Professor Rob Gous Scholarship.

Musicians win national Ensemble Competition



The Trio Con Brio ensemble in the Odeion School of Music (OSM) was crowned winners of the open category during the final round of the national SASMT (South Society of Music Teachers) Ensemble competition. The Trio Con Brio comprises OSM students **Kagiso Ramosa** (clarinet), **Maria Yasbeck** (violin), and **Karlin Kock** (piano).

From the left: Werner Stolze of Stolze Pianos (sponsor), Karlin Kock (Trio Con Brio), Dr Mageshen Naidoo (adjudicator – UP), Kagiso Ramosa (Trio Con Brio), Renette Bouwer (adjudicator – UJ), Maria Yasbeck (Trio Con Brio), and Prof Wessel van Wyk from UP.

Finance students in finals of Research Challenge

Four BCom Honours students in the Department of Economics and Finance were among the top four teams in the country when they made it through to the finals of the Chartered Financial Analyst (CFA) Society of South Africa's 13th annual Research Challenge. The CFA Research Challenge is an annual global competition in equity research.



Jan Hendrik Grobbelaar, Frans Benecke, Dr Ivan van der Merwe (Lecturer in the Department of Economics and Finance), Sacha Bourquin, and Johann Schlebusch.



Young Scientist Award

Prince Matova, a PhD student in Plant Breeding, received the Young Scientist Award from the Joint Food and Agriculture Organisation of the United Nations (FAO)/International Atomic Energy Agency (IAEA) Division of Nuclear Techniques in Food and Agriculture for excellence in plant mutation breeding. The award is given to scientists younger than 40 who have made a significant contribution and impact in the field of mutation breeding.

RUNNER-UP IN INTERNATIONAL FALLING WALLS SCIENCE SUMMIT

Emmie Chiyindiko, PhD student in Chemistry, came second out of the 74 pitches presented in the 'Breakthrough of the year: Emerging Talents' category in the 2021 Falling Walls Science Summit in Berlin. Her presentation, titled 'Breaking the walls of darkness,' addressed challenges faced in sub-Saharan Africa regarding access to electricity. 'Falling Walls' is a world-class pitching competition and networking forum that brings together a diverse and interdisciplinary pool of students, researchers, and early-career professionals by providing a stage for breakthrough ideas.







FOCUSED RESEARCH



A RESEARCH-LED INSTITUTION

The UFS Research Strategy is aligned with the UFS vision to be a research-led, student-centred, and regionally engaged university that contributes to development and social justice through the production of globally competitive graduates and knowledge. The overall goal is to increase the UFS contribution to local, regional, and global knowledge, to address fundamental and strategically important questions, and to make an economic, social, and cultural impact at regional, national, and international levels.

In 2021, through the updated UFS Research Strategy, the focus was on the following key performance areas:

- Focusing resource allocation for research and innovation on UFS areas of strength and distinctiveness.
- Transforming the profile and increasing the diversity of UFS researchers.
- Increasing research impact and uptake and focusing on the African continent.

GUIDING PRINCIPLES FOR UFS RESEARCH



Responsible stewardship of human, financial, and other resources.



A culture of people-centred, flexible, and accurate service delivery.

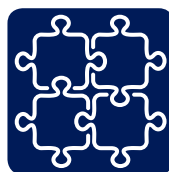
A focus on relevance, excellence, and impact.



Responsiveness to market needs and demands for human resources, expertise, and products.



A culture of continuous reflection and improvement in strategies, actions, and systems.



Integration, collaboration, and synergy for better performance.

Top NRF-rated scholars



PROF WILLEM BOSHOFF (A)

RESEARCH FIELD: Art



PROF MELANIE WALKER (A)

RESEARCH FIELD: Higher Education
and Human Development



PROF MAXIM FINKELSTEIN (A)

RESEARCH FIELD: Probability, Statistics
and Operations Research



DR MATTEO GRILLI (P)

RESEARCH FIELD: Political History

2021 in numbers



5% – increase
in publication rate in
international journals



15% – increase in
number of black NRF-rated
academics over past five years

44 – more NRF-
rated researchers



73 – scholars
participating in Professoriate
Mentoring Programme



UFS SARCHI RESEARCH CHAIRS

Research Chair in Higher Education and
Human Development Research Programme:

Prof Melanie Walker



Research Chair in Disease Resistance
and Quality in Field Crops:

Prof Maryke Labuschagne

Research Chair in Pathogenic Yeasts:

Prof Carolina Pohl-Albertyn



Research Chair in Solid-state Luminescent
and Advanced Materials:

Prof Hendrik Swart

Research Chair in City-Region Economies: Prof Ivan Turok

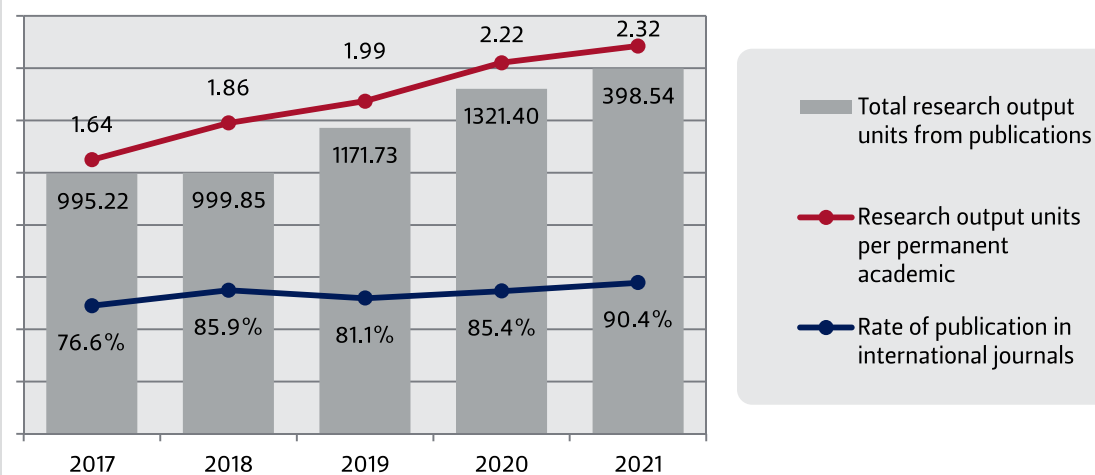


Research Chair in Vector-borne and Zoonotic Pathogens: Prof Felicity Burt

The **South African Research Chairs Initiative (SARCHI)** was established in 2006 by the Department of Science and Technology (DST) and the National Research Foundation (NRF). It is designed to attract and retain excellence in research and innovation at South African public universities through the

establishment of research chairs with a long-term investment trajectory of up to fifteen years. Its main goal is to strengthen and improve the research and innovation capacity of public universities to produce high-quality postgraduate students and research and innovation outputs.

Research Outputs



Chairperson of Ethics Council

Prof Mamello Sekhoacha, Associate Professor from the Department of Pharmacology in the Faculty of Health Sciences, was appointed by Dr Zweli Mkhize, Minister of Health, as the new chairperson of the National Health Research Ethics Council of South Africa (NHREC).



SELECTED FOR AHP FELLOWSHIPS



Dr Bryson Nkhoma



Dr Innocent Dande



Dr Una Sechele



Dr Sarah-Jane Walton

Four postdoctoral fellows from the **International Studies Group (ISG)** were selected for the African Humanities Programme, which is presented through the American Council of Learned Societies and funded by the Carnegie Corporation. The AHP received more than 500 applications for 47 postdoctoral fellowships in 2021.

Science Oscar winner



Prof Paul Oberholster, Director of the Centre for Environmental Management, won the NSTF-Water Research Commission (WRC) Award for his contribution to water resource management in SA over the past five years, with special reference to the field of biological passive wastewater treatment.

Nominated to Pan-African Scientific Research Council



Dr Johan Coetzee, Senior Lecturer and researcher in the Department of Economics and Finance and the UFS Business School, has been nominated as a senior member of the Pan-African Scientific Research Council.

SANAS accreditation awarded



Institute for Groundwater Studies staff

The UFS **Institute for Groundwater Studies**, the leading groundwater research group in Africa on aspects related to fractured rock aquifers, industrial and mining contamination, groundwater governance, and groundwater resources, obtained ISO 17025 accreditation from the South African National Accreditation System (SANAS) for all methods used, indicating that it adheres to all the required international standards.

Selected for Future Professors Programme

Three early-career academics have been selected for the prestigious Department of Higher Education and Training (DHET) Future Professors Programme (FPP) to become a new cohort of South African professors.



Dr Mikateko Mathebula
(Centre for Development Support)



Dr Philip Aghoghovwia (Department of
English and Cultural Studies)



Dr Brian van Soelen
(Department of Physics)

INNOVATIVE RESEARCH PROJECTS

Pioneering mountain range expanding project



Grant Martin, Dr Ralph Clark, Jan van Niekerk, Prof Aliza le Roux, Prof Peter Taylor, and Dr Sandy Steenhuisen.

In an Afromontane Research Unit (ARU) initiative, a two-year EU Horizon 2020 project under the Department of Science and Innovation was secured. This forms part of the Mountain Invasion Research Network, and will be looking at the mechanisms underlying the success and impact of range-

expanding species on biodiversity and ecosystem functioning. Experiments will be conducted for two years using open-top chambers – causing an increase in temperature of 3 or 4 degrees to what you find naturally – on plant species at different altitude levels, to see how they function in global warming scenarios.

Fighting water pollution in Eastern Free State



The Afromontane Research Unit (ARU) initiated another research project in 2021, focusing on assessing the quality of local natural water resources in order to foster sustainable development in Phuthaditjhaba, and to address the recurring challenges pertaining to water quality and quantity in the Maluti-a-Phofung (MAP) Local Municipality. As the first project focusing exclusively on pollution issues in a select Afromontane region, a team of ARU scientists and students – led by **Dr Patrick Voua Otomo**, Head of the Ecotoxicology Research Laboratory and Subject Head: Zoology and Entomology in the Faculty of Natural and Agricultural Sciences – set out to determine the ecotoxicological and bacteriological state of water resources in MAP. This project aims to work towards environmental sustainability in the region.

Water quality as yardstick for health of informal heritage sites

Dr **Stephanie Cawood** from the Centre for Gender and Africa Studies, and Dr **Tascha Vos** from the Centre for Environmental Management – a limnologist with a doctorate in environmental management – are studying how water quality could be used at informal heritage sites to measure the health of the sites. They are also aiming to test the workability of their

Rapid Integrity Appraisal (RIA) bio-cultural screening model as a way to safeguard informal heritage sites and cultural heritage. This interdisciplinary research is unique and brings together the science of aquatic ecology (limnology) as well as the cultural and social human dynamics of heritage, pilgrimage, and ritual and how they interact.



Makashane Ntlhabo (PhD student in the Centre for Gender and Africa Studies), Dr Tascha Vos, and Dr Stephanie Cawood



Leading research on eco-friendly concrete

The Department of Engineering Sciences, under the leadership of Dr **Abdolhossein Naghizadeh**, is heading a collaboration of scientists from universities in South Africa and abroad to create a green concrete that will reduce the impact of cement on the environment. This product has the potential to be used as an alternative to conventional concrete in large-scale constructions such as residential buildings and infrastructure, as well as small-scale constructions such as pavements and brickworks. Conventional cement production is responsible for more than 6% of the overall carbon emissions in the world, which ultimately affects global warming.



IMPACTFUL



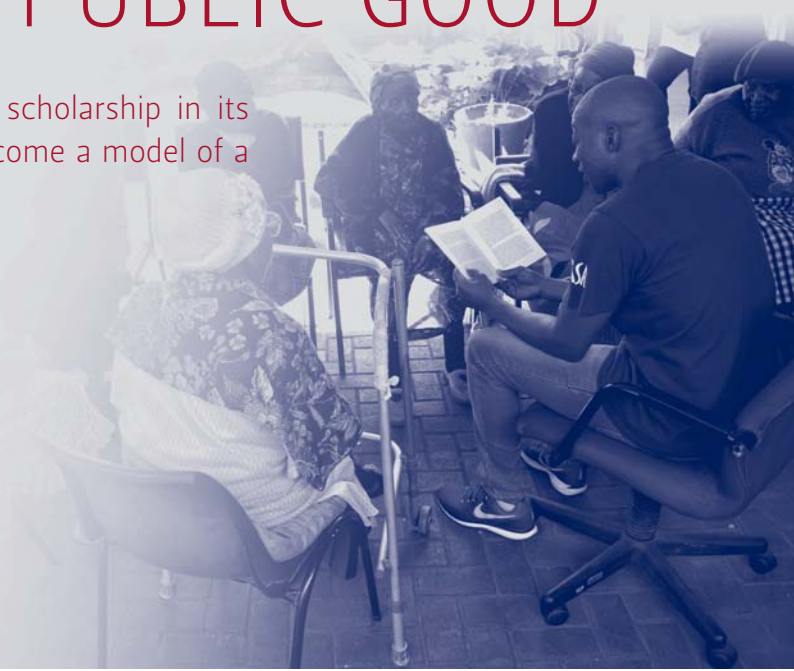


ENGAGEMENT

ENGAGED SCHOLARSHIP FOR THE COMMON PUBLIC GOOD

Through its commitment to embed engaged scholarship in its institutional framework, the UFS aspires to become a model of a truly robust and responsive university.

This aspiration is assisted by mobilising the university's teaching, learning, research, and engaged scholarship capacities to make a significant contribution to the development of the province, South Africa, and the African continent – all within the ambit of the United Nations Sustainable Development Goals. Such a contribution, with engaged scholarship at its heart, aims to enhance cooperation between the university and its surrounding community by using the UFS as a staging ground for continued and creative interaction.



ENGAGED SCHOLARSHIP GOALS:



Creating an enabling environment for engaged scholarship in the context of community engagement partnerships for the common public good



Integrating relevant engaged research methodologies needed for engaged scholarship into the institutional epistemology



Integrating engaged teaching-learning strategies into the curriculum

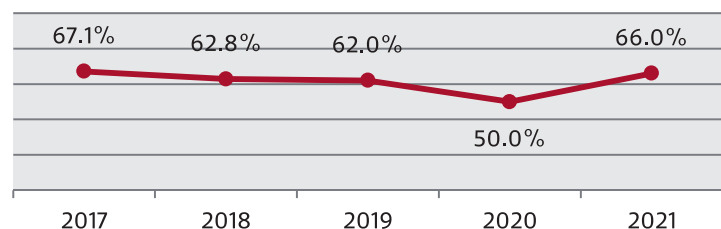


Inculcating the consciousness of responsible engaged citizenship and social justice among staff, students, and communities



Prioritising engaged scholarship in the UFS funding model

ENGAGED SCHOLARSHIP: Student participation in service learning



Free State Centre for Human Rights: A Year of Growth and Achievement

The FSCHR, established in 2016, is a *critical, interdisciplinary, and contextually engaged* research, advocacy, and legal-practice institution, focusing in its work on the relationship between *human rights and transformation*. Its work is interdisciplinary in nature, drawing on a range of different disciplines and combining insights and wisdom from a variety of disciplines.

Four new extraordinary professors joined the FSCHR in 2021 – Judge Dhaya Pillay and Profs Loot Pretorius, Toyin Falola, and Sandra Liebenberg – bringing with them a wealth of experience, legal skill, and insight. They join the current group of extraordinary professors: Retired Judge and Professor Dennis

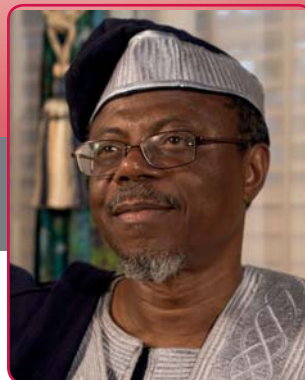
Davis, Prof Mwiza Nkhata, Prof Gracienne Laauwers, Prof Karl Klare, Prof Lucy Williams, and Prof Serges Kamga. Over the next three years, they will be closely involved in various research projects of the FSCHR and will also participate in postgraduate teaching and supervision.



Judge Dhaya Pillay



Prof Loot Pretorius



Prof Toyin Falola



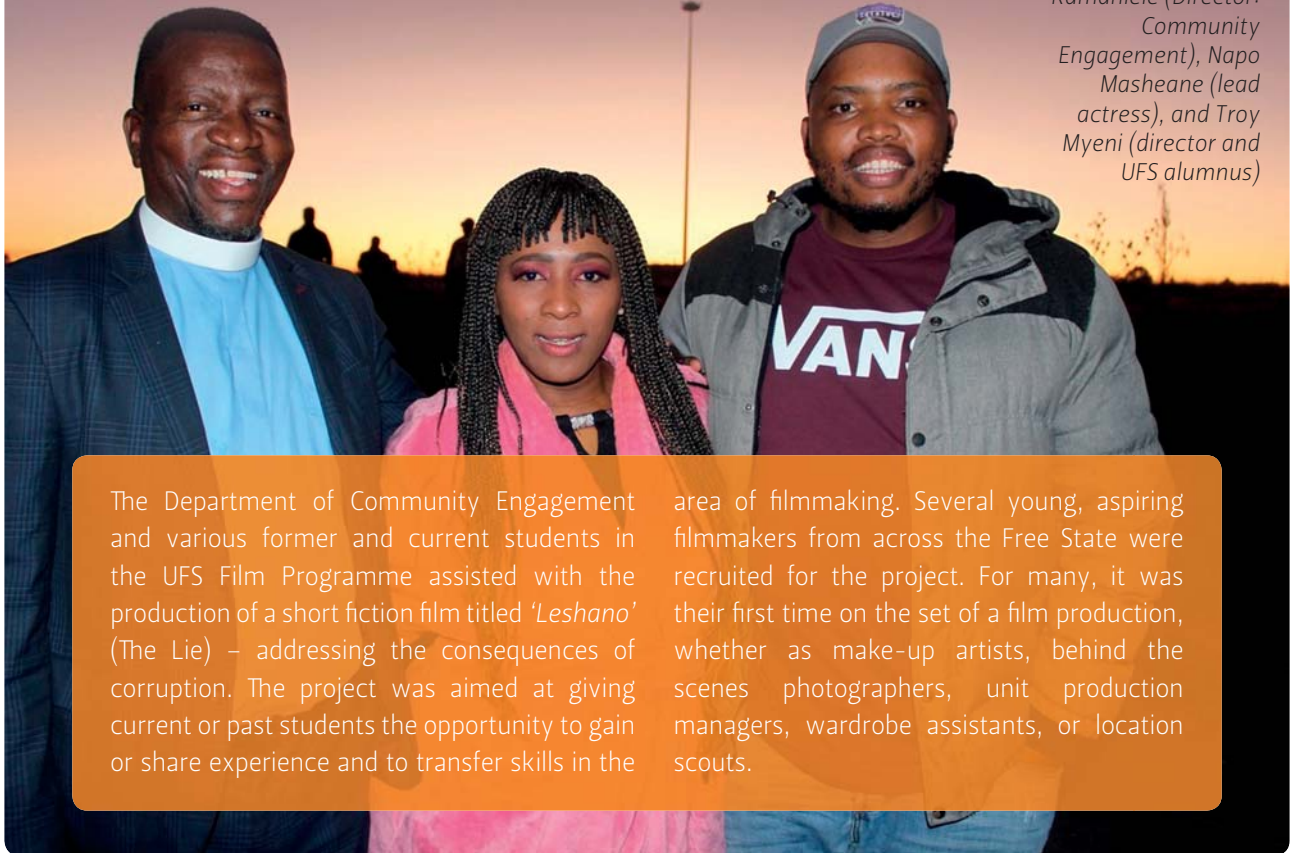
Prof Sandra Liebenberg



Judge Dhaya Pillay was appointed an Acting Justice of the Constitutional Court of South Africa for the first term of 2021.

Community Engagement assists in filmmaking project

Bishop Billyboy Ramahlele (Director: Community Engagement), Napo Masheane (lead actress), and Troy Myeni (director and UFS alumnus)



The Department of Community Engagement and various former and current students in the UFS Film Programme assisted with the production of a short fiction film titled 'Leshano' (The Lie) – addressing the consequences of corruption. The project was aimed at giving current or past students the opportunity to gain or share experience and to transfer skills in the

area of filmmaking. Several young, aspiring filmmakers from across the Free State were recruited for the project. For many, it was their first time on the set of a film production, whether as make-up artists, behind the scenes photographers, unit production managers, wardrobe assistants, or location scouts.



EXPERIMENTAL FARM ASSISTS VELD FIRE VICTIMS

The UFS Paradys Experimental Farm donated 428 bales of animal feed to destitute farmers, after veld fires destroyed thousands of hectares of land in the Tierpoort and Fauresmith districts in July. University staff also assisted with putting out the fires and treating burnt animals.



Health Sciences students reach out to hospital community

The Mother and Child Academic Hospital (MACAH) Foundation embarked on a community-based project to do some much-needed renovation and upgrades to the Mother Lodger Unit at the Universitas Academic Hospital. Mothers often stay at the unit while their babies are required to remain in hospital for an extended period of time. Volunteers from the MB ChB, Occupational Therapy, Physiotherapy, and Psychology programmes assisted with painting, cleaning, and gardening.

Director of newly formed Agri Relief Foundation

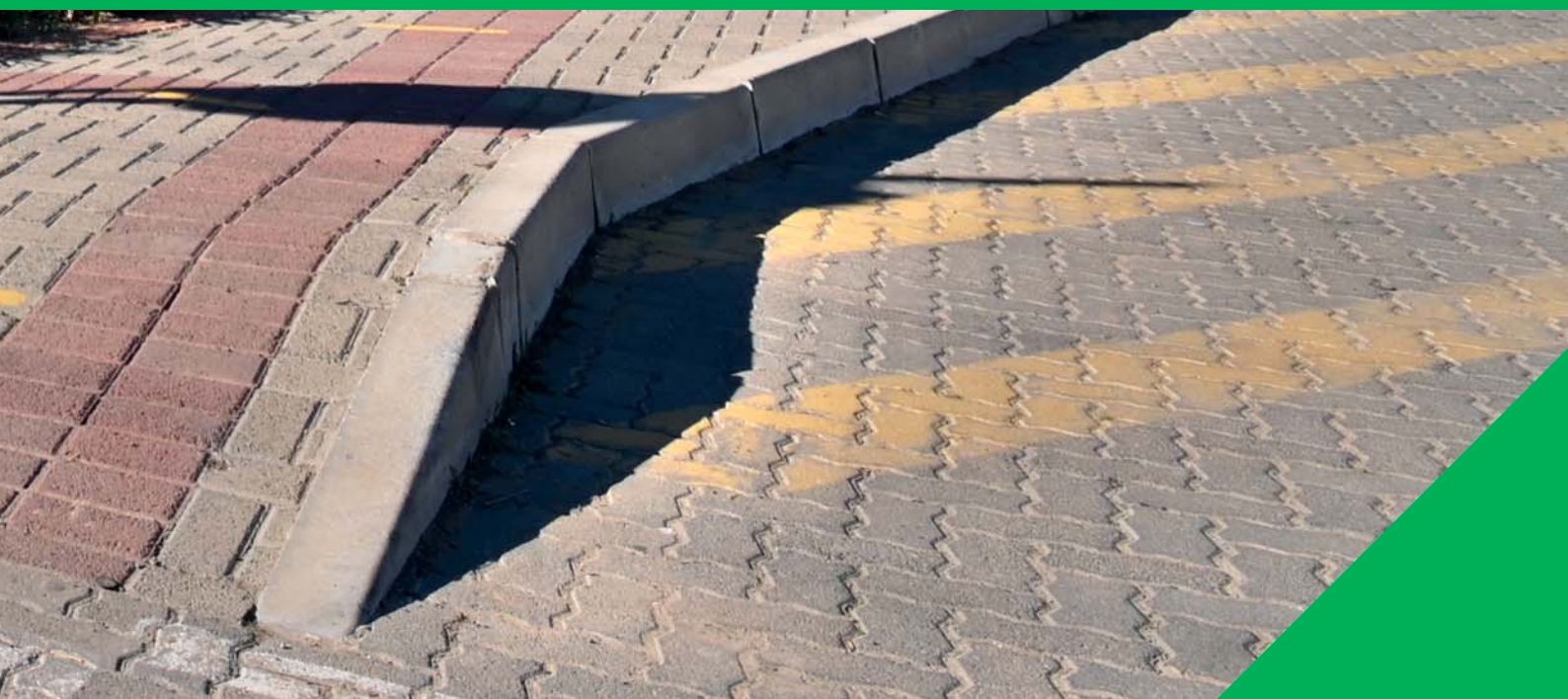


Dr Frikkie Maré, Senior Lecturer in the Department of Agricultural Economics, was appointed as one of the directors of a newly formed non-profit organisation, the Agri Relief Foundation (ARF). This initiative is the brainchild of businesses in the agricultural sector and will assist individual farmers who face financial and other needs as a result of natural disasters, crime or other factors. These case studies will also be used as real-life practical examples in the tuition of Agricultural Economics students.





VISIBILITY AND IMPACT



PROGRESSIVE TECHNOLOGY

The UFS embraces the unprecedented technological advances that have taken place globally across different sectors over the past few years. We are constantly updating curricula as well as teaching and learning practices in order to prepare students on a technological front for an ever-evolving world of work.

This year marked the first year of implementation of the UFS Digitalisation Implementation Plan. This is a comprehensive strategy to harness the rapid development in information and communication technology (ICT) for the benefit of our students, our staff, and our institution. We want to find the best way of using ICT as a tool for enhancing learning, research, collaboration, and decision-making.

The pace of technology advancement and innovation is not determined by plodding, consensus-oriented processes, but by technology curves that enable a doubling of capabilities every few years and a dedicated decision-making process. Shepherding a technical innovation into routine requires multi-disciplinary task teams to function optimally and be equipped with resources.

UFS to host advanced continental Pharmacology Centre of Excellence

The Department of Pharmacology at the University of the Free State (UFS) will establish one of the most advanced modern Pharmacology GLP-accredited research and development laboratories in the country, and possibly in the region, after receiving a grant of R58 million. **Prof Motlalepula Matsabisa**, Director of Pharmacology, has received a DSI high-end infrastructure (HEI) grant to build the laboratory, which will be a centre of excellence for the government, the World Health Organisation (WHO), and the African Union's (AU) Commission for Social Development. The grant will also be used to build an herbal medicines production/manufacturing facility, as well as piloting a health facility for traditional medicines.



Upgraded eye-tracking technology measure consumer behaviour



Additional new state-of-the-art eye equipment procured in 2021 expanded the scope of eye-tracking technology used in the Sensory Laboratory in the Department of Sustainable Food Systems and Development. The Tobii Pro Nano and Tobii Pro Glasses3 eye-tracker systems can, among other things, measure computer interaction in consumer environments.

The equipment is placing the university at the forefront of using digital technology in the analysis of consumer behaviour to help make food systems sustainable.

ADVANCED MICROSCOPY INSTRUMENTS MAKE UFS LEADER IN MATERIALS RESEARCH

The Centre for Microscopy acquired three advanced microscopy instruments to the value of R65 million, giving it a leading edge in microscopy technology in South Africa.

- A **high-resolution transmission electron microscope** (HRTEM) allows for direct imaging of the atomic structure of samples. It will also be used to optimise heat treatment of materials, as it can heat the sample up to 1 000 °C while recording live images of it – making the UFS the only institution in South Africa that can perform this function.

- A **focused ion-beam secondary electron microscope**, used to cut out samples on a microscopic level to place inside the HRTEM.
- A **scanning electron microscope**, allowing researchers to produce images of a sample by scanning the surface of the sample with a focused beam of electrons.

These instruments will be used in the fields of Chemistry, Physics, Microbiology, Geology, Plant Sciences, Zoology, and Cardiothoracic Surgery.

2021 in numbers

R300 million – required over next three years to keep abreast of the adoption of new technology innovation within the higher education sector

New analytical capability in doping control



From the left, front: Betsie Human (analyst), Mrs Pat Lamusse (Deputy Director: Institutional Advancement, UFS), Itumeleng Mabusa (analyst), and Zeenat Raffie (part-time analyst). From the left, back: Hanno du Preez (Director: SADOCoL) and Faith Latha (analyst) in front of the new Q Exactive HF-X instrument.

With funding from the National Lotteries Commission (NLC), the South African Doping Control Laboratory (SADOCoL) was able to procure a R10 million Thermo QE-HF-X instrument, which will enable the laboratory to expand its capability to enhance analytical throughput and sensitivity as required by the International Standard for Laboratories set out by the World Anti-Doping Agency (WADA). The high-resolution Orbitrap

mass spectrometer, which was installed in June, is specifically designed for the analysis of high-molecular mass molecules, such as peptides and peptide fragments.

This instrument will enhance the quality of screening analysis by improving the sensitivity of the analysis and will ensure that the laboratory delivers on its mandate to ensure clean sport.

Unique X-ray system gives Physics competitive advantage

The Department of Physics acquired a PHI Quantex XPS system in 2021 – the first in Africa and one of only 20 in the world. The system uses X-rays to determine the chemical composition of molecules on the surface of a sample and is unique in the sense that it also has an extra X-ray source that can determine the chemical state below the surface, which was not

possible in the past. This will assist researchers in dictating the position of defects in phosphor materials, enabling them to create better phosphor for solid-state lighting as well as solar cell applications. The new system gives UFS scientists and postgraduate students more time to spend on fundamental measurements to develop research of a higher level.

Digital Scholarship Centre assists researchers in navigating digital landscape

A Digital Scholarship Centre (DSC) was established by the Library and Information Services in 2021, contributing to the development of a collaborative research culture at the university – from cross-faculty and international collaboration to support and administrative services for research. The centre, which has its roots in the digital, open, and networked environment, helps to maximise the effectiveness of scarce and limited resources by minimising duplication with the help of research data management and knowledge of the institutional research environment.



Nuclear Medicine implementing advanced technology in prostate cancer treatment

In a first for the Free State province, **Dr Osayande Evbuomwan**, Senior Lecturer and Medical Specialist in the Department of Nuclear Medicine, started using Lutetium 177 PSMA (Lu-177 PSMA) therapy for the treatment of metastatic castrate-resistant prostate cancer (MCRPC) – an advanced stage of prostate cancer, in 2021.

This is a targeted nuclear medicine therapy that offers the opportunity to deliver very high levels of radiation specifically to cancer cells, because these cancer cells express specific receptors to which certain peptides can bind. This specificity to cancer cells offers the advantage of providing lower doses of radiation and minimise damage to normal organs and tissues, a characteristic that conventional therapies do not offer.

The Departments of Urology and Radiation Oncology at the UFS were also instrumental in the initiation of the therapy.



ADVANCING INDIGENOUS KNOWLEDGE

The UFS is committed to advancing indigenous knowledge systems across different study fields, tapping into the understandings, skills, and philosophies developed by societies with long histories of interaction with their natural surroundings. We believe that indigenous knowledge systems represent an important component of global knowledge on development issues.

International recognition for UFS traditional medicine expert



Prof Motlalepula Matsabisa, Professor and Director of Pharmacology, received several accolades and well-deserved recognition as traditional medicine expert during 2021.

- Awarded a visiting professorship at the Beijing University of Chinese Medicine (BUCM) in Beijing, China.
- Elected as the Deputy President of the South African Society for Basic and Clinical Pharmacology.
- Recommended to form part of the India, Brazil, and South Africa (IBSA) working group in traditional medicine. Prof Matsabisa is also part of a technical team for the National Department of Health on traditional medicines for the IBSA countries.

Historian appointed to National Indigenous Knowledge Ministerial Panel



The Minister of Sport, Arts and Culture has appointed **Prof Chitja Twala**, Vice-Dean of the Faculty of the Humanities, as a member of the Indigenous Knowledge / Intangible Cultural Heritage National Authentication Panel. The purpose of the panel and its members is to advise and assist the Minister of Sport, Arts and Culture in safeguarding and promoting South Africa's indigenous knowledge systems in accordance with the department's mandate. Prof Twala is one of the leading scholars on liberation and cultural history and has served in positions such as Chairperson of the Free State Provincial Heritage Resources Authority, and Deputy Chairperson of the War Museum in Bloemfontein.

Indigenous South African oral cultures a potential environmental knowledge system

Dr Oliver Nyambi, Senior Lecturer in the Department of English, and Dr Patrick Voua Otomo, Senior Lecturer in the Department of Zoology and Entomology, resumed an important research project in 2021 to examine the portrayal of environmental conservation in oral stories from indigenous South African cultures. The project had been on hold for two and a half years as Dr Nyambi took up a two-and-a-half-year Alexander von Humboldt Fellowship in Germany. Focusing on oral stories from the Zulu, Sotho and Tsonga traditions, the study seeks to understand what – in the stories as well as modes of their transmission – reflects certain consciousness, knowledge, and histories of African indigenous environmentalism before the advent of Western forms of conservation.



Dr Oliver Nyambi



Dr Patrick Voua Otomo

Indigenous Health Knowledge System receives R17 million annual grant

The Indigenous Knowledge System (IKS) for Health in the Department of Pharmacology in the Faculty of Health Sciences at the University of the Free State (UFS) has been awarded an annual Technology and Innovation Agency Platform (TIA) grant of R17 million for the next five years. This

research and teaching programme in the School of Clinical Medicine will now be rebranded and be known as the African Medicines Innovations and Technology Development Platform (AMITD), which will strive to respond to community health needs and address industry research challenges.

BENEFICIAL COLLABORATION

The UFS remains a highly internationalised university and continued during 2021 to deepen and expand its collaboration with international and local associates. Collaboration with a wide array of stakeholders, not only from within the global higher education arena, but also from industry, the public and private sectors, enables the UFS to stay abreast of current developments and the latest trends, continuously adapting training programmes in order to stay relevant in an ever-changing world of work.

Faculty of Law to collaborate in international training initiatives

The Faculty of Law and the International Law Institute SA Centre for Excellence (ILI-SACE) entered into a series of joint initiatives. This collaboration will leverage the synergies of the two institutions to offer executive training programmes/short learning programmes and to collaborate on a variety of topics.



*Prof John Mubangizi,
Dean of the Faculty of Law*

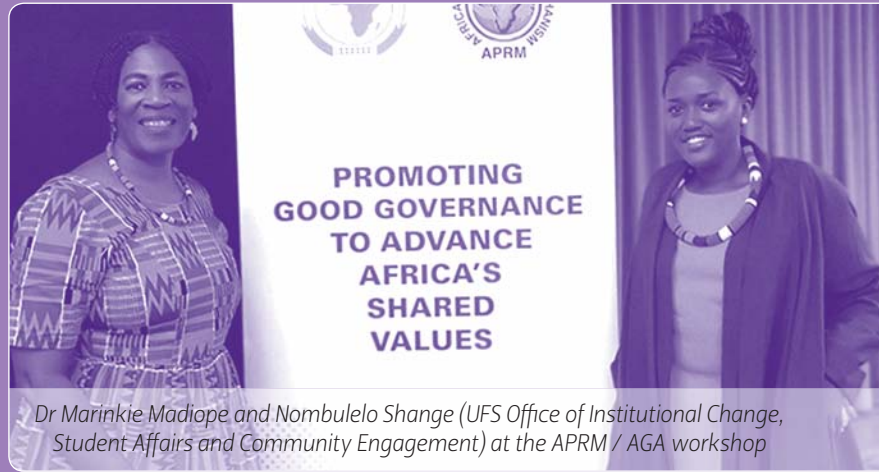
Collaboration with Salzburg University leads to EU funding

An inter-institutional agreement between the Faculty of Economic and Management Sciences and the Salzburg University of Applied Sciences has resulted in the receipt of a considerable Erasmus+ grant from the European Union. The two institutions plan various

further teaching and research collaborations, including a consecutive degree exchange programme where prospective postgraduate students will obtain two master's degrees in the broader field of finance and spend time on both campuses.

Contribute to drafting of the 2021 African Governance Report

Dr Marinkie Madiope, South Campus Principal, was invited by the African Peer Review Mechanism (APRM) and African Governance Architecture (AGA) to a validation workshop to draft and adopt the 2021 African Governance Report (AGR). The drafting of the AGR is one of the many strategies being explored to help move Africa towards the Agenda 2063 goals of turning the continent into a global powerhouse while achieving the pan-Africanist goals regarding a united, self-reliant and thriving Africa.



Dr Marinkie Madiope and Nombulelo Shange (UFS Office of Institutional Change, Student Affairs and Community Engagement) at the APRM / AGA workshop

LIBRARY AND INFORMATION SERVICES RECEIVES INTERNATIONAL RECOGNITION FOR EXCELLENCE

The Interlibrary Loan division in the Department of Library and Information Services has been selected by global library cooperative OCLC (Online Computer Library Centre) for enrolment in its Express Digital

Delivery Programme. This American non-profit cooperative organisation supports thousands of libraries in making information more accessible and useful to people around the world.



Expanding learning opportunities for public servants

The UFS Business School was appointed as a service provider of the National School of Government (NSG) to provide education, training, and development programmes to the public sector for a period of five years.

Prof Philippe Burger (Vice-Dean in the Faculty of Economic and Management Sciences) and Mr Busani Ncgaweni (Principal, NSG) at the NSG signing ceremony in Pretoria.

ARU EXTENDS MOUNTAIN RESEARCH ACROSS AFRICA THROUGH COLLABORATION

The Afromontane Research Unit joined forces with the University of Helsinki (Finland) and the National University of Lesotho (NUL) for a National Research Foundation (NRF) award to the University of Pretoria on using fine-scale functional and compositional variation in alpine plants to predict the impact of climate change. This project will expand understanding of the ecology of the alpine zone in the Maloti-Drakensberg, and its similarity (or dissimilarity) to other alpine and tundra environments.



African collaborations contribute to food security on the continent

As part of a collaboration between the UFS and the Consortium of International Agricultural Research Centres (CGIAR), Prof Maryke Labuschagne, Professor of Plant Breeding in the Department of Plant Sciences, is working with a group of more than 20 PhD students

and postdoctoral fellows to improve the nutritional status of poor rural communities. Group members are from several countries on the continent, including Zimbabwe, Zambia, Uganda, Ghana, Ethiopia, Kenya, Lesotho, Eswatini, Tunisia, Ethiopia, and South Africa.

Matriculant of the Year Competition celebrates 40th year



The popular Matriculant of the Year Competition was held for the 40th time in 2021, having been cancelled the previous year due to COVID-19 restrictions. The UFS co-hosts this annual competition with *Netwerk24* and *Volksblad*. Well-rounded matriculants who not only excel academically, but are also involved in culture, sport, and leadership, can enter. Community service and community engagement are also taken into account during the judging process.

From the left is Prof Francis Petersen, Rector and Vice-Chancellor of the UFS, Pieter Hoogenboezem, 2019 winner, and Gert Coetzee, Editor of Volksblad.

Project with Brussels university develops gel-based drug release systems

A long-awaited collaborative project between the Organic Chemistry group at the UFS and the Organic Chemistry (ORGC) group at the Vrije Universiteit Brussel (VUB) commenced in 2021. This project is jointly funded by the National Research Foundation (NRF) and the Research Foundation – Flanders (FWO) and is aimed at the development of new peptide-based materials with properties controllable by precisely tuned interactions of unnatural amino acids included in the peptide sequence. Such peptides can, for example, be used as smart materials for precisely controllable drug release.



Dr Charlene Marais (UFS Department of Chemistry), Prof Vladimir Azov (UFS Department of Chemistry), and Prof Ulrich Hennecke (VUB)

UFS scientists involved in revolutionary protein structure prediction



Prof Dirk Opperman



Dr Ana Ebrecht, former postdoctoral student of the UFS

Prof Dirk Opperman, Associate Professor in the Department of Microbiology and Biochemistry, in collaboration with scientists at the North-West University (NWU), was part of an international collaboration of researchers who participated in solving an intricate problem in science – accurate protein structure prediction. The team of researchers contributed to an influential paper describing new methods in protein structure prediction using machine learning. The paper was published in the prestigious scientific journal, *Science*.

UFS drives flagship iKudu Project that promotes internationalisation and virtual exchanges

The UFS, through its Office for International Affairs, coordinates the iKudu Project – a Capacity Building for Higher Education (CBHE) project funded by the European Union's Erasmus+ programme with

approximately R20 million. At least 50 academics and 5 250 students from South Africa and Europe will participate in the project through the collaborative online international learning (COIL) exchange model.

PANDEMIC INITIATIVES

The third and fourth waves of the COVID-19 pandemic passed through South Africa in 2021. During the second semester of 2021, the university continued with the emergency remote learning adopted in 2020, bringing only specific programmes back to campus – mainly in the Faculty of Natural and Agricultural Sciences, the Faculty of Health Sciences, and students identified in the vulnerable group. The provision of access to students returning to campus was managed through a permit system.

Increasing the number of students who could access campuses brought about new challenges. The COVID-19 Special Executive Group (SEG), as the decision-making entity to ensure business continuity, continued to mitigate risks relating to its mandate of ensuring that reliable information based on sound science is communicated and

used in decision making; protecting the health, safety, and well-being of staff and students; successfully completing the academic year; implementing the 'No Student Left Behind' and 'No Staff Member Left Behind' initiatives; ensuring financial sustainability; and exploring different pathways to complete the Academic Project.

UFS assists Free State Department of Health with COVID-19 vaccinations



Mr Godfrey Mahlatsi, Acting Head of the Free State Department of Health; Ms Montseng Tsiu, Free State MEC of Health; Ms Sisi Ntombela, Premier of the Free State; and Prof Francis Petersen, Rector and Vice-Chancellor, at the Universitas Academic Hospital vaccination centre.

The UFS assisted the Free State Department of Health to equip primary vaccination centres in Bloemfontein and Qwaqwa to function optimally, by providing computers and furniture and installing network cables. The School of Nursing also trained students to help with the vaccination process.

Genomics surveillance in fight against COVID-19



The UFS was designated as a collaborating centre for vaccine-preventable diseases by the World Health Organisation (WHO). Prof Martin Nyaga, Associate Professor in the UFS Next Generation Sequencing Unit, heads the WHO Collaborating Centre, located in the Division of Virology within the Faculty of Health Sciences. According to Prof Nyaga, sequencing the SARS-CoV-2 genome is fundamental to acquiring real-time data and information on the pandemic, and rapid sequencing has played a key role in developing emergency vaccines.

SADoCoL equipped to do antibody tests for COVID-19

The South African Doping Control Laboratory (SADoCoL) has reorganised workspace and refurbished a laboratory section in order to conduct serology testing on serum and full blood samples for immunity against the SARS-CoV-2 virus. In this way, the laboratory supported the UFS in determining infection data, as well as the sporting community in determine the spread of infection with the SARS-CoV-2 virus among elite athletes.

Part of global Lancet COVID-19 Commission Task Team



Prof Philippe Burger, Professor of Economics and Pro-Vice-Chancellor: Poverty, Inequality and Economic Development, was appointed as a member of the Lancet COVID-19 Commission's Fiscal Policy and Financial Markets task force. The eleven members of the task force include two Nobel prize laureates in economics, as well as academics and public-policy specialists from across the world. The commission is an interdisciplinary initiative across the health sciences, business, finance, and public policy, and was created to help speed up global, equitable, and lasting solutions to the pandemic.

INCREASING UNDERSTANDING OF PANDEMIC



Alfi Moolman (UFS Directorate: Community Engagement), Sonja Venter-Botes (Bloemshelter), Tina Moleko (Rankwe Primary School), and Michelle Engelbrecht (UFS Centre for Health Systems Research and Development).

The Centre for Health Systems Research and Development (CHSR&D) donated 500 masks to Rekopane Primary School in Botshabelo. This was part of its pledge to donate 100 cloth masks to previously disadvantaged primary schools for every 1 000 of the first 5 000 completed questionnaires that formed part of a study survey examining people's understanding of information about COVID-19 vaccines.

Lockdown art gives evocative glimpse into student experience



An exhibition of first-, second-, and third-year student's work in the Department of Fine Arts, titled *Liminality* featured works created during the hard lockdown of 2020. The artworks provided a glimpse of what students had to deal with and overcome during these times. The exhibition spoke to shared experiences of insecurity, fragility, and discord, and to the resourcefulness and immutability of creative expression.



LASTING LEGACY



INCLUSIVE SPACES

A key UFS goal is that the names, symbols, and spaces on our campuses reflect our real commitment to diversity, inclusivity, and social justice.

Towards more accessible campuses

According to its principles of universal access and design, UFS University Estates undertook several infrastructure development projects on all three campuses in 2021, focused on making more walkways wheelchair-friendly, creating additional ablution facilities for persons with disabilities, and installing more lifts and ramps in and around buildings. All new infrastructure developments incorporate accessibility measures by default in the planning stage.

South Campus 24/7 Study Space

A large open-plan study space facility providing seating for 120 students, including a socialising area, security office, and ablution facilities, was constructed in 2021.

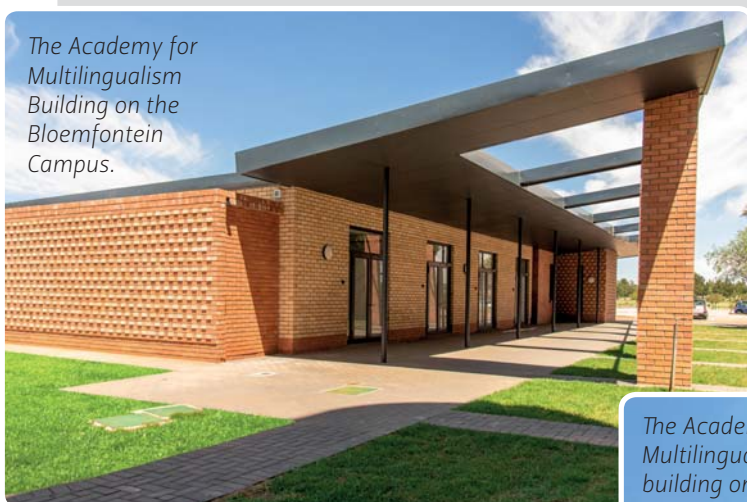


Architectural Awards for UFS buildings

Two UFS projects on the Bloemfontein Campus – the Modular Lecturing Space and Assessment Centre and the Council Chambers – were announced winners in the Architectural Projects category of the 2021 South African Institute of Architects (SAIA) Free State Regional Awards. The main criteria involved

compliance with a functional programme, as well as dealing intelligently with contextual informants, creating spaces that offer opportunities for meaningful interaction, and the use of materials and measures that are sympathetic to the environment in general, as well as to local climate conditions.

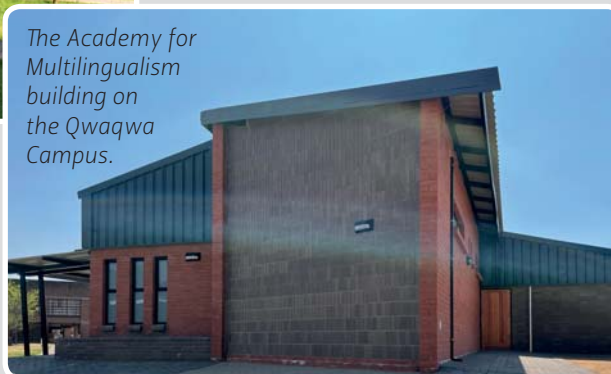
The Academy for Multilingualism Building on the Bloemfontein Campus.



New Academy for Multilingualism buildings on Bloemfontein and Qwaqwa campuses

These buildings provide lecturing and tutorial spaces that can be adjusted according to different needs, as well as staff offices and ablution facilities.

The Academy for Multilingualism building on the Qwaqwa Campus.



Innovative Modular Lecturing Space and Assessment Centres for Bloemfontein and Qwaqwa Campuses

The centre on the Bloemfontein Campus, completed in 2021 after a 22-month construction period, consists of state-of-the-art multifunctional spaces that can be used for large- and small-scale lectures or group work. The biggest venue, which can accommodate up to 980 students, can also be converted into five acoustically separate venues with a variety of table configurations depending on the educational needs. All the spaces are equipped with state-of-the-art audio-visual equipment. The computer laboratory and assessment centre can accommodate 800 students.



Three lecture halls, which form the main focus of the Qwaqwa Campus Centre, are designed to accommodate a total of 600 students. The building houses the Department of Economic and Management Sciences offices, boardrooms, discussion space, and the required quantity of ablutions and supporting services. A new Student Service Centre (SSC) accommodating Student Academic Services (SAS) and the National Student Financial Aid Scheme (NSFAS) also forms part of the project.



Facelift for Odeion

The Odeion School of Music (OSM) donned a new appearance in 2021, with a new façade to the main entrance, as well as a new reception area, social spaces, floor finishes, and ablution facilities.



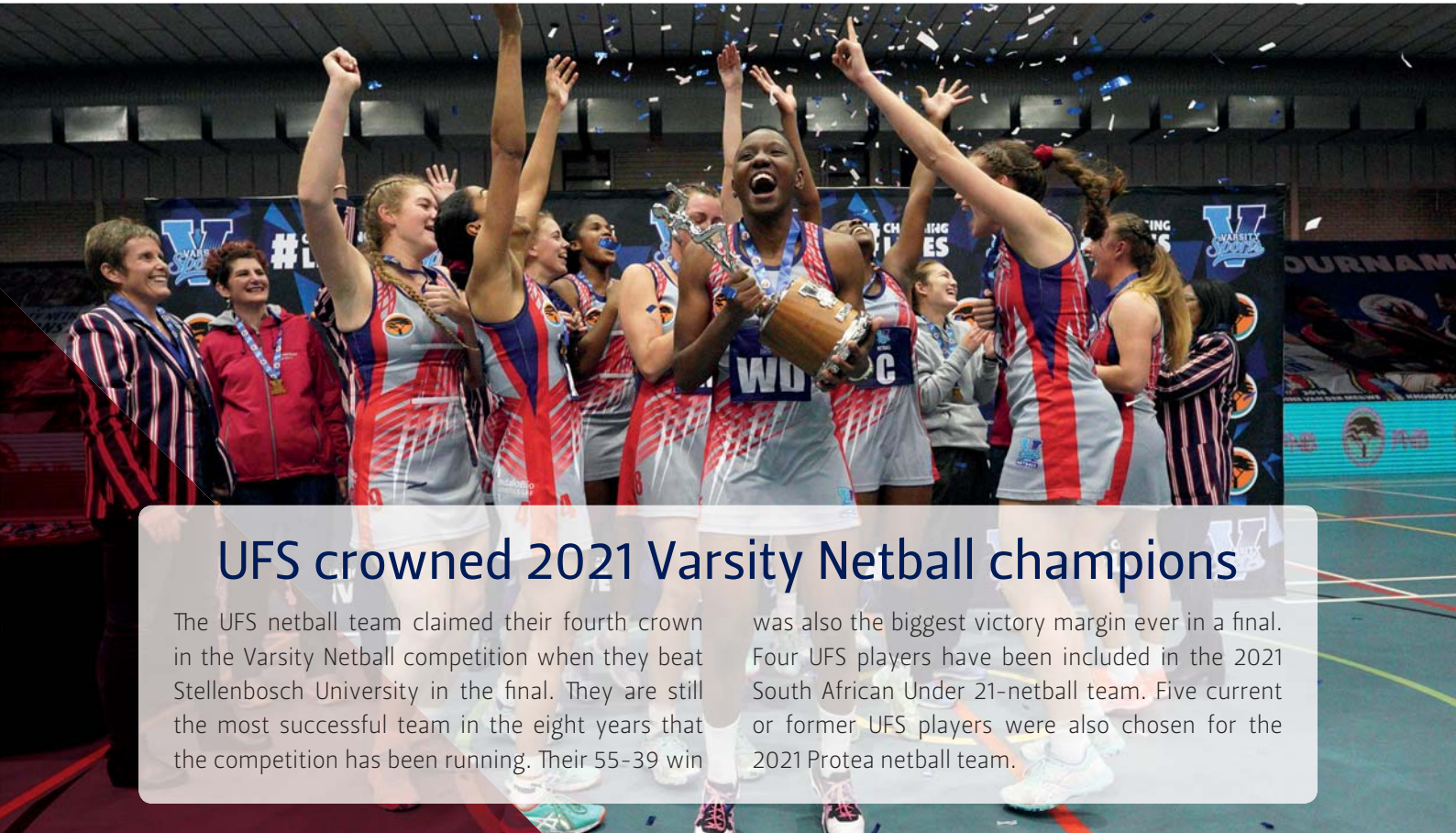
Quartet of Peace

In 2021, the Odeion String Quartet, the only resident string quartet at a South African university, had the great honour of becoming the custodians of the 'Quartet of Peace' – two violins, a viola, and cello made in Cape Town in 2010 by master craftsman Brian Lisus. He dedicated each one to South Africa's four Nobel peace laureates – Albert Luthuli, Desmond Tutu, FW de Klerk, and Nelson Mandela – and called them respectively *Freedom*, *Peace*, *Reconciliation*, and *Hope*.



Members of the Odeion String Quartet performing with the Quartet of Peace instruments

SPORTING CHAMPIONS



UFS crowned 2021 Varsity Netball champions

The UFS netball team claimed their fourth crown in the Varsity Netball competition when they beat Stellenbosch University in the final. They are still the most successful team in the eight years that the competition has been running. Their 55-39 win

was also the biggest victory margin ever in a final. Four UFS players have been included in the 2021 South African Under 21-netball team. Five current or former UFS players were also chosen for the 2021 Protea netball team.



Louzanne Coetzee with her 1500 m guide and UFS alumnus, Estean Badenhorst (left) and marathon guide Claus Kempen (right)

Louzanne gets double glory at 2021 Paralympics

Louzanne Coetzee won a silver medal in the women's 1500 m (T11) and a bronze medal in the women's mixed class marathon (T11 and T12 for the visually impaired) at the 2021 Paralympics in Tokyo. She also had the honour of carrying the SA flag during the closing ceremony. Louzanne is the residence head of House Akasia on the Bloemfontein Campus. She studied Marketing and Communication Science and later completed her master's in Reconciliation and Social Cohesion, with specific focus on students with disabilities in higher education.

Varsity Football runners-up

The UFS men's football team reached the final of the Varsity Football competition for the first time when they beat Tuks in the semi-final, eventually succumbing to the University of Johannesburg.



Alumni at 2021 Tokyo Olympics



Wayde van Niekerk defended his title as 2016 Olympic 400 m champion and world record holder

Gerda Steyn competed in the marathon in her first-ever Olympics



Nicole Erasmus became a fourth-generation Olympic contender as part of the Protea hockey team

Chris Dry was part of the South African sevens rugby team



Carla Oberholzer represented South Africa in cycling

Neil Powell was head coach of the South African sevens rugby team



Kate Murray (formerly Roberts), former Olympic contender, was the South African team's triathlon coach

INSPIRING ALUMNI

Voices from the Free State initiative launched



UFS
ALUMNI

2021

Voices from the
Free State



Prof Francis Petersen in conversation with the project's creators and co-hosts, Francois van Schalkwyk (left) and Keenan Carelse (right).

An inspiring podcast series launched in 2021, created and co-hosted by two UFS alumni leading the UFS United Kingdom Chapter, gives former students from around the world a platform to share and reflect on their experiences at the UFS, how it has shaped their lives, and relate why their ongoing association with the UFS is still relevant and important.

TOP APPOINTMENT FOR LEGAL EXPERT

Mercia Geises, Law alumna holds LLB (cum laude) and LLM degrees from the UFS, was appointed as Chief Executive Officer of SBN Holdings Ltd and Standard Bank Namibia Ltd.






New leader in agriculture sector

Dr Pieter Taljaard, Agricultural Economics alumnus, was appointed as CEO of Grain SA in 2021.

Medical doctor shines in international pageant



Dr Thato Mosehle, Health Sciences alumna and medical doctor, was crowned as second runner-up in the Miss Supranational 2021 competition in Poland. She was the first person under the official Miss South Africa Organisation banner to compete in this international competition.



Health Sciences Legacy Programme launched

In celebration of its 50th anniversary, the Faculty of Health Sciences launched the FHS Legacy Fund/Programme as a platform of engagement for all its alumni and stakeholders. Different mechanisms to facilitate support include donations towards projects, bursaries, departments, or initiatives, engaging in mentoring, supporting projects, and other expert opportunities.



International recognition for actor

Carel Nel, Drama and Theatre Arts alumnus, starred in the ecological horror fantasy movie *Gaia* that premiered at the SXSW Film Festival in Texas. The film subsequently received the Asteroide Award for Best Film at the 2021 Trieste Science+Fiction Festival, and was also listed among the Best Horror Movies of 2021 by *Variety*.

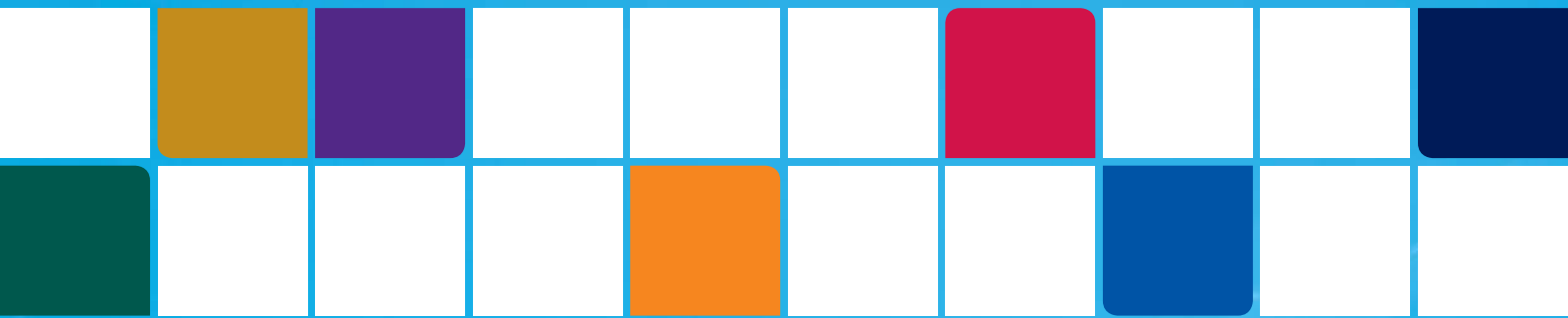


Our vision

The UFS is a research-led, student-centred, and regionally engaged university that contributes to development and social justice through the production of globally competitive graduates and knowledge.

Our motto

IN VERITATE SAPIENTIAE LUX
(In Truth is the Light of Wisdom)





Visibility and Impact

Compiled by

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