# GRADUATION CEREMONY Qwaqwa Campus

FRIDAY 29 APRIL 2022 14:00

2 D Z

Faculties of Economic and Management Sciences, Education, and Natural and Agricultural Sciences

Postgraduate Certificate, Bachelor's Degrees, Honours Degrees, Master's Degrees, and Doctor of Philosophy



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

# PROGRAMME

29 APRIL 2022 | 14:00 QWAQWA CAMPUS

**CONSTITUTION OF THE CONGREGATION** 

**OFFICIAL WELCOME** 

**MUSICAL ITEM** 

**PRESENTATION OF CANDIDATES** 

CONGRATULATORY MESSAGE

NATIONAL ANTHEM OF SOUTH AFRICA

#### DISSOLUTION OF THE CONGREGATION

Due to the nature of the graduation ceremony and the number of students who will be graduating, it will not be practically possible to uphold social distancing in the venue. To ensure the protection of all individuals present on campus, the university has implemented the COVID-19 Regulations and Required Vaccination Policy, which regulates the access of staff, students, and visitors to the campuses.

By attending the graduation ceremony, you agree that the UFS may use photographs taken by the official photographer and on which you appear, for marketing purposes.

By attending the graduation ceremony, you agree that the UFS may use video footage taken by the official videographer and in which you appear, for marketing purposes.

# Nkosi sikelel' iAfrika

## NATIONAL ANTHEM OF SOUTH AFRICA

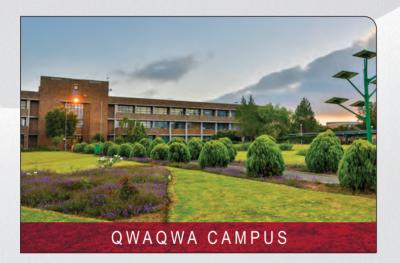
Maluphakanyisw' uphondo lwayo, Yizwa imithandazo yethu, Nkosi sikelela, thina lusapho lwayo. Morena boloka setihaba sa heso, O fedise dintwa le matshwenyeho, O se boloke, O se boloke setjhaba sa heso, Setjhaba sa South Afrika -South Afrika. Uit die blou van onse hemel, Uit die diepte van ons see, Oor ons ewige gebergtes, Waar die kranse antwoord gee, Sounds the call to come together, And united we shall stand, Let us live and strive for freedom, In South Africa our land.

#### In order to maintain the dignity of the ceremony, you are requested to take note of the following:

- Please stand as the procession enters the hall
- Do not move around during the ceremony in order to take photos
- Please refrain from disruptive behaviour during the ceremony
- Please put your cellphone on silent so as not to disturb the proceedings
- · Please do not leave the hall before the graduation proceedings have been concluded
- Family and friends unable to attend may watch the full graduation ceremonies through our livestream link at http://livestream.ufs.ac.za

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







## ABOUT THE UFS

The University of the Free State (UFS) has a proud history as one of the oldest, most respected institutions of higher education in South Africa. It opened its doors in Bloemfontein in **1904** as the Grey University College, with six students in the Humanities. Today it is a multi-campus institution, with two diverse campuses in Bloemfontein and one in Qwaqwa in the scenic Eastern Free State, accommodating more than 40 000 students in its seven faculties (Economic and Management Sciences, Education, Health Sciences, the Humanities, Law, Natural and Agricultural Sciences, Theology and Religion), with an increasing number of international students and associates, and an ever-widening scope of active involvement in and contribution to its surrounding communities.

For the past **118 years**, the UFS has been delivering quality graduates who have made their mark in various sectors. What sets the institution apart is its holistic student support initiatives, enabling it to achieve some of the highest success rates in the country. Delivering students who are in high demand in the global job market, remains a top priority. An established network of industry partners and close collaboration with the public and private sectors, as well as a continuous process of transformation and curriculum renewal, dovetail to produce highly employable graduates.

UFS research efforts are driven by dedicated scholars, some of whom are **international leaders** in their fields, with industry and social impact and real-world application.

Through the principle of **engaged scholarship**, the UFS responds to societal needs, using its **scholarly and professional expertise** with an intentional public purpose and benefit.

The UFS is an institution that goes all out to provide its students and staff with an outstanding **university experience**. Anchored in a value bedrock of **social justice**, **respect**, and **caring**, the institution has managed to remain steadfastly relevant in a challenging and everchanging national higher education landscape.

## DEVELOPMENT OF THE UFS CREST OVER MORE THAN A CENTURY

#### 1904

Up to 1935, the same coat of arms was used as the Grey College School.





By 1935, with the name change to University College of the Orange Free State, the coat of arms fell into disuse, especially among students.

### 1947

In 1947, an agreement between management and students led to the new motto Per Fidem ad Sapientiam (Through faith to wisdom).

## 1950

In 1952, it was changed to In Deo Sapientiae Lux (In God is the light of wisdom). The traditional orange, white and blue, linking the UFS to the South African national colours, changed in the late 1990s.

The orange was replaced by cherry red.



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



### 2011

The academic brand - the historic University of the Free State crest that has been the symbol of the university since 1952, has evolved to embrace the aesthetic expectations of the stakeholders. The shape of the traditional academic shield has been simplified and contemporised. Much of the symbolism of the crest remains intact, acknowledging the location of the UFS brand as one of the country's premier institutions of higher education, with a proud history of academic excellence and an ever evolving, vibrant culture.

### **GRADUATION CEREMONY 2022**

## Honorary Awards | Honorary Doctorates

		1			
1950	GLP Moerdyk – DLitt (h.c.)		FP Retief – DMed (h.c.)		T (Karel) Schoeman – DLitt (h.c.)
1951	NC Havenga – LLD (h.c.)		JA Stegmann – DCom (h.c.)		YK Seedat – DMed (h.c.)
1952	Thos Blok – DEd (h.c.)	1987	WA Joubert – LLD (h.c.)		MK Seely – DSc (h.c.)
1552	SHS Rubidge – DSc (h.c.)	1307	B Kok – DPhil (h.c.)		C Seerveld – DPhil (h.c.)
1055					
1955	CR Swart – LLD (h.c.)	1000	WP Venter – DCom (h.c.)		F van Z Slabbert – DPhil (h.c.)
40-0	CA v Niekerk – LLD (h.c.)	1988	JJN Cloete – DAdmin (h.c.)		JC Steyn – DLitt (h.c.)
1958	CPB Brink – LLD (h.c.)		FC Fensham – DLitt (h.c.)		PA Verhoef – DTh (h.c.)
	CF Visser – DEd (h.c.)		JW vd Riet –DPhil (h.c.)		L van den Heever – LLD (h.c.)
1959	DB Bosman – DLitt (h.c.)	1989	BJ Meyer – DSc (h.c.)		HA Wessels – LLD (h.c.)
	SP le Roux – DScAgric (h.c.)		N van Uden – PhD (h.c.)	2005	A du P Heyns – DMed (h.c.)
	DF Malherbe – DLitt (h.c.)	1990	MG Corbett – LLD (h.c.)		JJF Durand – DPhil (h.c.)
	GH v Rooyen – MA (h.c.)		JS Rabie – DLitt (h.c.)		JA Groenewald – DSc (h.c.)
1960	SPE Boshoff – DLitt (h.c.)	1991	SS Brand – DCom (h.c.)		WH Neuser – DTh (h.c.)
1961	T Boydell – DPhil (h.c.)	1001	JWL de Villiers – DSc (h.c.)		M Ramos – PhD (h.c.)
1962	ES Botes – DEd (h.c.)		GT Fagan – DArch (h.c.)		SJ Terreblanche – DCom (h.c.)
1302	PE Rousseau – DSc (h.c.)			2006	
1062			JH Hofmeyer – PhD (h.c.)	2000	T Moss – PhD (h.c.)
1963	EH Louw – LLD (h.c.)	1000	E v Heerden – DLitt (h.c.)	0007	PV Cox – PhD (h.c.)
	EN Roberts – DSc (h.c.)	1992	JP Louw – DLitt (h.c.)	2007	BJ (Bannie) Britz – DArch (h.c.)
	JGF (Kaalkop) vd Merwe - DCom (h.c.)		H Olivier – DSc (h.c.)		KPD Maphalla – PhD (h.c.)
	HF Verwoerd – DLitt et Phil (h.c.)	1993	JD Anderson - DMed (h.c.)	2008	D Ferreira – DSc (h.c.)
1966	PSZ Coetzee – DPhilTh (h.c.)		RR Arndt – DSc (h.c.)	2009	JC Loock – PhD (h.c.)
	PJ du Toit – DSc (h.c.)		SJ Naudé – LLD (h.c.)		LTC Harms – LLD (h.c.)
	MS Louw – DCom (h.c.)	1994	JJ Human – DPhil (h.ć.)	2010	P Gordhan – PhD (h.c.)
1967	SM Naudé – DSc (h.c.)		JA Myburgh – DMed (h.c.)		BBS Ngubane – PhD (h.c.)
	LC Steyn – LLD (h.c.)		JP vd Walt – DSc (h.c.)		AH Strydom – PhD (h.c.)
	BJ Vorster – LLD (h.c.)	1995	WA Landman – DEd (h.c.)		M Jones – PhD (h.c.)
1968	SJ Naudé – DCom (h.c.)	1000	WL Mouton – DPhil (h.c.)	2011	D Tutu – DTh (h.c.)
1969	CW (Nellie) Swart – DPhil (h.c.)	1996	WDO Marasas – DSc (h.c.)	2011	P Fourie – DLitt (h.c.)
1505	AJJ Wessels – DCom (h.c.)	1550	NE Wiehahn – LLD (h.c.)		OG Winfrey – DEd (h.c.)
1970		1007			
1970	GS Nienaber – DLitt (h.c.)	1997	AP Brink – DLitt (h.c.)		RWM Frater – PhD (h.c.)
1071	HO Mönnig – DSc (h.c.)	1000	B Hurwitz – DPhil (h.c.)	0010	A Sawyer – DEd (h.c.)
1971	N Diederichs – DCom (h.c.)	1998	FC Müller – DMed (h.c.)	2012	RJ Goldstone – LLD (h.c.)
	RS Verster – DPhil (h.c.)	1999	FM Claerhout – DPhil (h.c.)		ER v Heerden – DLitt (h.c.)
1972	LW Hiemstra – DPhil (h.c.)		JJF Hefer – LLD (h.c.)		M Nussbaum – DLitt (h.c.)
	PJ Meyer – DPhil (h.c.)		S Nigam – DSc (h.c.)		OW Prozesky – MD (h.c.)
1975	PJ Nienaber – DLitt (h.c.)		WL Nkuhlu – DCom (h.c.)		FDJ Brand – LLD (h.c.)
	De la H de Villiers – DScAgric (h.c.)		MA Ramphele – DPhil (h.c.)	2013	ZKG Mda – DLitt (h.c.)
	GJ Stander – DSc (h.c.)		HJO van Heerden – LLD (h.c.)	2014	ML Blum – PhD (h c )
1976	AJA Roux – DSc (h.c.)		FJ van der Merwe – PhD (h.c.)		L Mulvey – DLitt (h c)
1978	SP Botha – DSc (h.c.)	2000	MH Daling – DCom (h.c.)	2015	L Brahimi – DPhil (h.c.)
	EM van Zinderen Bakker – DSc (h.c.)		TN Liversedge – PhD (h.c.)	20.0	JM Samuel – DEd (h.c.)
	HB Thom – DEd (h.c.)		I Mahomed – LLD (h.c.)		MA Oduyoye – DTh (h.c.)
1979	FCL Bosman – DPhil (h.c.)	2001	BP Gilbertson – DCom (h.c.)		JD Sacks – DEcon (h.c.)
1373		2001		2016	
	G Cronjé – DSocSc (h.c.)		NR Mandela – LLD (h.c.)	2010	RJ Khoza – DEcon (h.c.)
4000	CJF Human – DCom (h.c.)	0000	EC Taglauer – DSc (h.c.)		TA Manuel – DEcon (h.c.)
1980	G Boonzaier – DPhil (h.c.)	2002	BH Meyer – PhD (h.c.)		M du Preez – PhD (h.c.)
1981	PW Botha – DPhil (h.c.)		BAK Rider – LLD (h.c.)		J Samoff – DPhil (h.c.)
	B Human – DCom (h.c.)		CF Slabber – PhD (h.c.)		F Haffajee – PhD (h.c.)
	SG Shuttleworth – DSc (h.c.)		JM Stetar – DEd (h.c.)	2017	PH Holloway - DSc (h.c.)
1982	BLS Franklin – DPhil (h.c.)	2003	EWA de Corte – DEd (h.c.)		M Botha – LLD (h.c.)
	GvN Viljoen – DEd (h.c.)		HA Serebro – DPhil (h.c.)	2019	BL Fanaroff – DSc (h.c)
1983	L Luyt – DCom (h.c.)		AG Sykes – DSc (h.c.)		J Mofokeng wa Makhetha – DLitt (h.c.)
	SF Zaaiman – DPhil (h.c.)	2004	S Badat – DPhil (h.c.)		MB Molemela – LLD (h.c.)
1984	HS Stevn – DSc (h.c.)		R Bringle – DPhil (h.c.)	2021	ZM Yacoob – LLD (h.c.)
	FR Tomlinson – DScAgric (h.c.)		J de Wet – DMus (h.c.)		SM Pityana – DPhil (h.c.)
	JH vd Berg – DMed (h.c.)		CF Fauconnier – DSc (h.c.)		RJ van Niekerk – DLitt (h.c.)
1985	L Alberts – DSc (h.c.)		GJ Gerwel – DPhil (h.c.)	2022	WK Byanyima – PhD (h.c.)
1000	GG Cillié – DPhil (h.c.)		WD Jonker – DTh (h.c.)	2022	DM Davis – LLD (h.c.)
	SPD le Roux – DLitt (h.c.)				DE Moseneke – LLD (h.c.)
			A Krog – DLitt (h.c.)		
	A Polson – DPhilMed (h.c.)		K Mokhele – DPhil (h.c.)		AL Sachs – LLD (h.c.)
1000	J du P Scholtz – DPhil (h.c.)		CJC Nel (Postuum) – PhD (h.c.)		MJ Wingfield – DSc (h.c.)
1986	S Grové – DMus (h.c.)		L Quayle – DMus (h.c.)		
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## Shields of Honour, Council and Chancellor's Medals

1994	Prof FO Müller (Shield of Honour)	2003	Prof HC Janse van Rensburg (Council Medal)
	RE Schoombie (Shield of Honour)		Prof SA Petersen (Shield of Honour)
1995	Prof FO Müller (Chancellor's Medal)	2008	Ludo Helsen (Shield of Honour)
	RE Schoombie (Chancellor's Medal)	2009	Prof JU Grobbelaar (Council Medal)
1996	Prof S Mittman (Shield of Honour)	2010	Mrs AM Dippenaar (Chancellor's Medal)
1997	Prof M Jansens (Shield of Honour)	2014	Dr H Verster (Chancellor's Medal)
1998	Prof CJC Nel (Chancellor's Medal)	2014	Mr JL Pretorius (Chancellor's Medal)
	Prof C Swanepoel (Chancellor's Medal)	2016	Mr AD Osler (Chancellor's Medal)
1999	WJ (Hansie) Cronje (Shield of Honour)		Ms M van der Merwe (Chancellor's Medal)
	Prof David Justice (Shield of Honour)	2017	Ms JS Isaacs (Chancellor's Medal)
2000	Prof P Rosseel (Shield of Honour)	2019	Mr JF de Villiers (Chancellor's Medal)
	Prof MJ Viljoen (Chancellor's Medal)		Ms EM Oosthuizen (Council Medal)
2001	Prof PC Potgieter (Chancellor's Medal)	2022	Dr N Pearce (Chancellor's Medal)
2002	T Moss (Shield of Honour)		Mr N Janse van Rensburg (Council Medal)
	Prof CD Roode (Chancellor's Medal)		

#### MESSAGE FROM THE RECTOR AND VICE-CHANCELLOR

#### Dear Student



elcome to the graduation ceremony of the University of the Free State (UFS).

We are especially pleased that your graduation ceremony can take place in person and in the presence of the university congregation.

Today is a memorable day and a culmination of the time you spent here at the UFS. You are not only becoming an alumnus of this great 118-year-old institution, but you are now also part of a fraternity of exceptional individuals who have graduated before you.

Congratulations to our graduands – this is a special day indeed and it is certainly heart-warming to see so many of you being conferred these well-deserved qualifications today. You should be proud of your achievements – take a moment to celebrate and acknowledge YOU.

At the same time, you would not have reached this milestone without the support of many people around you – let us also acknowledge and express gratitude to your support structures – the parents, family, friends, guardians, and lecturers who made it possible for you to be here today.

As you venture into the world, you will find yourself contemplating what your role in the world is and what kind of a world you want to live in. Sometimes the road ahead can be challenging and complex – however, remember that the skills of hard work, resilience, determination, and focus will help you forge ahead. After all, these are the skills that have helped you to achieve your UFS qualification.

Also be mindful that collective and individual responsibility is important to our success – this became very clear during the pandemic. Reach out to others, lend a helping hand wherever you can, support each other, involve yourselves in your communities, and most of all, be kind and humane. Be mindful of these in everything that you do.

Graduands, I am proud of your resilience. You are truly inspiring, and I am confident that you are well prepared to embrace the future and flourish in anything you set your mind to.

Be brave, be bold, and make a difference in this world.

Best wishes **PROF FW PETERSEN** RECTOR AND VICE-CHANCELLOR | UNIVERSITY OF THE FREE STATE

#### Moithuti ya Ratehang

**R** e a le Unive

e a le amohela moketeng wa kabo ya dikgau wa University of the Free State (UFS).

Re thaba ka ho kgethehileng hore mokete wa lona wa kabo ya dikgau o tla etswa le le teng moo ka seqo pela mokgopi wa yunivesithi.

Lena ke letsatsi leo le tla le hopola kamehla mme ke sehlohlolo sa nako eo o e qetileng mona UFS. Ha se feela hore le fetoha alumnus setheong sena se seholo sa thuto se nang le dilemo tse 118, empa jwale le boela le fetola karolo mokgatlo wa batho ba hlaheletseng ka mahetla ba ile ba fumantshwa dikgau tsa yunivesithi pele ho wena.

Ditebohiso ho baithuti ba rona ba di-graduate – lena ke letsatsi le kgethileng ka nnete mme dipelo tsa rona di thabile haholo ho bona ba bangata ba lona le fuwa mangolo a lona a tshwaneleho ao le tshwanelehang ho a fumana kajeno. O tlameha ho ikotla sefuba ka sena seo o se fihleletseng – iphe nako ya ho nahana ka mokete ona le ho IKAMOHELA.

Ka nako e tshwanang, le ne le ke ke la kgona ho fihlella mohato ona wa bohlokwa ntle le tshehetso ya batho ba bangata ba le potapotileng – le leboha ditheo tse ileng tsa le tshehetsa – batswadi, lelapa, metswalle, bahlokomedi, le dilektjhara ba ileng ba le thusa ho fihla mohatong ona kajeno.

Jwalo ka ha le tswela kantle lefatsheng, le tla iphumana le nahana ka hore seabo sa lona e tla ba sefe lefatsheng le hore na le lakatsa ho phela lefatsheng la mofuta ofe. Ka dinako tse ding tsela e larileng kapele e ka ba le diphephetso le ho rarahana – le ha ho le jwalo, hopolang hore tsebo le bokgoni ba ho ikakgela ka setotswana mosebetsing, mamello tlasa maima, boikemisetso, le ho tsepamisa dikelello ho tla le thusa ho hatela pele. Ho phaella mona, ena ke tsebo le bokgoni bo le thusitseng ho fihlella mangolo a lona a tshwaneleho mona UFS.



Le boele le hopole hore boikarabelo bo kopanetsweng le boikarabelo ba motho ka bomong ke ba bohlokwa bakeng sa katleho ya rona – sena se ile sa bonahala ka ho hlakileng nakong ya lefu la sewa. Otlolella batho ba bang letsoho la hao, ba thuse kae kapa kae ha o kgona, tshehetsanang, e bang le seabo mesebetsing ya thuso ya setjhaba metseng ya lona, mme ka hodimo ho tsena kaofela, e bang batho ba mosa le ba nang le botho. Hopolang dintho tsena nthong efe kapa efe eo le e etsang.

Ke hlile ke motlotlo ka mamello ya lona, di-graduate. Ka sebele le fana a kgothatso, mme ke kgodisehile hore le malala-a-laotswe ho amohela bokamoso le ho atleha nthong efe kapa efe eo o tsepamisang mehopolo ya lona ho yona.

E bang sebete, mme le etse phapang lefatsheng lena.

#### Ditakaletso tse ntle

MOPROFESARA FRANCIS W PETERSEN MOREKTORO LE MOTLATSA MOKANSELIRI | YUNIVESITHI YA FREISTATA

#### Bafundi Abakhethekile



 iyanamukela kumcimbi wokwethweswa kweziqu bukhoma eNyuvesthi yase-Free-State.

Okusijabulisa kakhululu ukuthuthi lo mcimbi wenzeka bukhoma futhi phambi kobuholi beNyuvesi.

Namuhla usuku olungeke lwakhohlakala, luyisicongo sokugcina esikhathini osichithe lapha eNyuvesi yase-Free-State. Awuzogcina nje ngokuba yilunga lenyuvesi elingasekho emagcekeni alesi sikhungo esineminyaka eli-118 ubudala, kodwa njengamanje usiyingxenye yalabo abayibambe ishisa ngaphambi kwakho.

Siyahalalisa kwabazokwethwesa iziqu – lolu wusuku olumqoka kakhulu futhi kuyintokozo enkulu ukubona abaningi benu bethola iziqu abazidingayo namhlanje. Kufanele nizigqaje kakhulu ngenikuzuzile, kumele nithathe umzuzwana nijabule niziqhenye.

Okunye okuqaphelekayo ukuthi, beningeke nifike kuleli zinga ngaphandle kwabantu abaningi ebebeniseka – ake futhi sibheke futhi sithokoze nabantu abasesekayo – abazali, umndeni, abantu abasigadayo, kanye nothisha abenze isiqiniseko sokuthi khona lapha namhlanje.

Njengoba senibheke komunye umhlaba, uzozithola ungazi ukuthi uyini umsebenzi wakho kulo mhlaba nokuthi umhlaba ofuna ukuphila kuwo unjani. Mhlawumbe indlela ngaphambili inezinselelo kanye nezingqinamba, kodwa khumbula amakhono okusebenza kanzima, ukubekezela, ukuphokophelela, kanye nokuqonda ulwazi, kuzokusiza ukuba uphokophelele phambili. Emva kwakho konke lokhu, lawa ngamakhono akusizile ukuba uzuze iziqu zaseYunivethi yase-Free-State.

Okunye okufanele ukukhumbule njalo ukuthi ukusebenzisana kanye nokusebenza ngawedwa kumqoka kabi empumelelweni yethu, lokhu kucace ngesikhathi sokhuvethe (i-Covid). Finyelela kwabanye ngokosizo, siza lapho kumele usize khona, xhasa omunye nomunye, yiba yingxenye yomphakathi, okunye futhi okumqoka yiba nomusa nobuntu. Kukhumbule lokhu kukho konke okwenzayo.

Kulabo abazokwethwesa iziqu, ngiyazigqaja ngokubekezela kwenu. Ngempela niyisibonelo, futhi nginesiqiniseko sokuthi nizimisele futhi nikulungele ukungena kwikusasa futhi nichume kukho konke enibeka umqondo wenu kukho. Yibani nesibindi, nizethembe, nenze umehluko kulo mhlaba.

#### Nginifisela okuhle SOLWAZI FW PETERSEN

UTHISHANHLOKO, APHINDE ABE NGUSEKELA-SHANSELA WENYUVESI YASE-FREE-STATE

## UFS



The University of the Free State 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.

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

#### OFFICE BEARERS



**CHANCELLOR** Prof BF Mohale Professor of Practice (JBS)



RECTOR AND VICE-CHANCELLOR Prof FW Petersen PhD (SU)



CHAIR OF COUNCIL Mr D Noko HND Mechanical Engineering (UJ)



VICE-RECTOR: OPERATIONS Prof P Naidoo PhD (VISTA)



VICE-RECTOR: RESEARCH, INNOVATION AND INTERNATIONALISATION Prof RC Witthuhn PhD (UFS)



EXECUTIVE DIRECTOR: STUDENT AFFAIRS

Mr T Hlasho MPhil (NMU)



VICE-RECTOR:

INSTITUTIONAL CHANGE,

STRATEGIC PARTNERSHIP,

AND SOCIETAL IMPACT

Dr M Qhobela

PhD (KSU)

REGISTRAR: Mr NN Ntsababa MPA (NMU)



VICE-RECTOR:

ACADEMIC

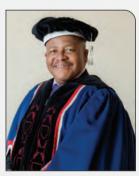
Dr EL van Staden

DPhil (UJ)

CAMPUS PRINCIPAL: SOUTH CAMPUS Dr M Madiope DEd (Unisa)



PRESIDENT OF CONVOCATION Dr PD du Toit PhD (UFS)



CAMPUS PRINCIPAL: QWAQWA CAMPUS Dr M Mandew PhD (UN)



PRESIDENT: INSTITUTIONAL STUDENT REPRESENTATIVE COUNCIL

## DEANS





DEAN: ECONOMIC AND MANAGEMENT SCIENCES

Prof P Burger PhD in Economics (UFS)





THE HUMANITIES Prof H Hudson PhD (UFS)





DEAN: EDUCATION Prof LC Jita PhD (MSU)





LAW

Prof JC Mubangizi LLD (UDW)





DEAN: THEOLOGY AND RELIGION Prof RS Letšosa PhD (PU/CHE)





DEAN: HEALTH SCIENCES Prof GJ van Zyl PhD (UFS)





DEAN: NATURAL AND AGRICULTURAL SCIENCES

> Prof PD Vermeulen PhD (UFS)

#### UFS GRADUATION PROGRAMME 9

## QWAQWA CAMPUS SENIOR LEADERSHIP



CAMPUS PRINCIPAL Dr M Mandew PhD (UN)



CAMPUS VICE-PRINCIPAL: SUPPORT SERVICES

Mr TI Manchu MA (UFS)



CAMPUS VICE-PRINCIPAL: ACADEMIC AND RESEARCH

Prof MP Sithole PhD (Cambridge)



ASSISTANT DEAN: ECONOMIC AND MANAGEMENT SCIENCES

> Dr C Mudzingiri PhD (UFS)



ASSISTANT DEAN: EDUCATION Dr CT Tsotetsi PhD (UFS)



ASSISTANT DEAN: THE HUMANITIES

Dr J McDonald PhD (London)



ASSISTANT DEAN: NATURAL AND AGRICULTURAL SCIENCES

> Prof A Le Roux PhD (SU)

## HONORARY DOCTORATE JUSTICE DIKGANG MOSENEKE



ustice Dikgang Moseneke retired in May 2016 as the Deputy Chief Justice of the Republic of South Africa and as justice of the Constitutional Court of South Africa. Before his appointment to the Constitutional Court, he was judge of the High Court in Pretoria. Justice Moseneke completed matric while imprisoned on Robben Island for participating in political activities against the apartheid regime. He continued to complete BA, Bluris, and LLB degrees from the University of South Africa before starting his professional career as an attorney's clerk in 1976.

In 1993, Justice Moseneke was appointed to serve on the technical committee that drafted the 1994 Interim Constitution for a democratic South Africa, before pursuing a full-time corporate career until 2001, after which he was appointed to the Constitutional Court. In 2018, Justice Moseneke received the Order of Luthuli in gold, the Republic of South Africa's highest national award. Throughout his career, he has played an active role in the affairs of the organised profession and served in several community-based and non-governmental organisations.

Justice Moseneke has been associated with tertiary education institutions in different capacities, including with the University of Oxford, the Zurich School of Law, and the New York University Law School. He holds several honorary doctorates and is the recipient of numerous accolades at home and abroad, including from the Bolch Judicial Institute at Duke University, USA, in 2020.

Over the past 40 years, Justice Moseneke has read numerous papers at law conferences, both at home and abroad, and is widely published in academic law journals. He recently published his personal memoirs, *My Own Liberator* and his judicial memoirs, *All Arise*.

## FACULTY OF ECONOMIC AND | MANAGEMENT SCIENCES |

ECONOMIC AND MANAGEMENT SCIENCES

#### DEAN | PROF P BURGER

#### ASSISTANT DEAN DR C MUDZINGIRI

#### **BACHELOR'S DEGREES**

#### BACHELOR OF ADMINISTRATION

BOROTHO, Malehlaka\* BUTHELEZI, Nondumiso\* BUTHELEZI, Zamashenge CHALALE, Tsietso Jeanet DLAMINI, Kwazikwenkosi Kadesibonga HADEBE, Mendy HLONGWANE, Nokuthokoza HUTTON, Lerato Valencia JEJANE, Hlolani Nhlanhla Nahum JOBE, Cynthia KHESWA. Lethukuthula Sinethemba KUBHEKA, Olwethu KUMALO, Sinenhlanhla Mnelisi KUNENE, Gugu Bonisile LANGA, Buyisani LEHLOKOANYANE, Modiehi Agnes LITALI, Thabo LUMGA. Veronica Noncithakalo LUMKWANA, Florah Mbali MAGWENYANA, Njabulo

MAHLABA, Noluthando Sinothile MAKHEKA, Mpolai Charlotte MAKHUBO, Thokozile Jeanett MALINDI, Ntombazana Lucy MALULEKE. Thandiwe MANANA, Sphamandla Collen MASHEGO. Muhle Zinhle MASIA, Boitumelo Glenda MASUKU, Nokubonga Senamile MATONSELA, Mapula Emely MAVIMBELA, Elsie Lindiwe MAZIBUKO, Simanga MBONA, Nokwanda Nolwazi MHLONGO, Nhlanzeko MNGUNI, Mbali Violet\* MOFOKENG. Boitumelo Innocentia MOFOKENG, Malekgowa Portia MOFOKENG, Mamoya MOFOKENG, Sifiso MOGANE, Tebogo MOKETE, Selina\* MOKOENA, Mohapi MOKOENA, Palesa MOKOENA, Relebohile Percival MOKOENA. Tebello Jacob\* MOLOI, Mathoto Roseline MOLOI, Thabang MONGWE. Shaun Austin MOPHUTI, Maphello Constace MOROBI, Mpho Macdonald

MOTSHEKU, Mfanelo Wilson MOTSOENENG, Clementina Moipone MOTSOENENG, Modiehi Susan MPHETENG, Tebello Sylvia MPHOJANE, Matebello Alina\* MPHUTI, Priscilla\* MPULO, Luyanda MSIBI, Dieketseng Aphaphia MYEZA, Noxolo NDLOVU, Nokwanda Samukelisiwe Rithabile NDLOVU, Simangele Noluthando NOMANDLA, Thobeka NTONGA, Zandile Florenciah NTSALA, Relebohile Aletta\* NTSHINGILA, Happy Ayanda NXUMALO, Nosipho Precious NYAWOSE, Kwenzakufani Pheleleni PHOOKO, Mantsali Mamokuinihi Relebohile RADEBE, Duduzile Felicia RADEBE. Sidwell Mofihli RADEBE, Siphelele SEBAKAMOTSE, Makhoahle Khahliso SELLO, Mamello SEOKOMA, Pabalelo Octolecia SHANGE, Nothando SIBEKO, Puleng Janetta SIBISI, Luyanda Pertunia SIMELANE, Refilwe Victory



## FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

SITHOLE, Nonjabulo Samukelisiwe

TSHABALALA, Bonolo

TSHABALALA, Silindile Ntombizodwa

TSIAME, Ntsomo Agness

TSOTETSI, Mabotho Oscar ZONDI, Sinenhlanhla Princess

ZULU, Thandokuhle

ZUMA, Vuyiswa

## BACHELOR OF COMMERCE IN GENERAL MANAGEMENT

MOKHOTLA, Baanetse Reabetswe Prudence

#### BACHELOR OF COMMERCE WITH SPECIALISATION IN MANAGEMENT

MAHLABA, Teboho MAJOZI, Sinethemba MATLA, Refilwe Reymond MAYISE, Nomthandazo Brightlady MAZIBUKO, Mvuselelo MBATHA, Nomcebo MHLOPHE, Nkakobane Johannes MKHONZA, Sabelo Nkululeko MOEKOA, Kopano Ishmael MOHOHLO, Makgwasa Tlaleng MOKOENA, Elliot Tshepang MOKOENA, Nthabeleng Anna MOKONE, Sibongile Valentia MOLOI, Irvin MOLOI, Tobatsi Edwin MOSIA, Tumelo MOTAUNG, Palesa MPHIRIME, Maqaleng NDLEBE, Ntokozo NYIRENDA, Jabulani POLOKOANA, Neo Calvin RADEBE, Bongumusa Brian SEDIA, Lerato Constance SEEKANE, Itumeleng SIBIYA, Senamile THUSINI, Londeka TSHABALALA, Mamosa Theresia

## FACULTY OF EDUCATION



#### DEAN | PROF LC JITA

#### ASSISTANT DEAN | DR CT TSOTETSI

POSTGRADUATE CERTIFICATE IN EDUCATION IN SENIOR PHASE AND FURTHER

## EDUCATION AND TRAINING TEACHING

TSHABALALA, Zandile Constance

## FACULTY OF NATURAL AND AGRICULTURAL SCIENCES



NATURAL AND AGRICULTURAL SCIENCES

#### DEAN | PROF PD VERMEULEN

ASSISTANT DEAN | PROF A LE ROUX

#### **BACHELOR'S DEGREES**

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY MAJORING IN COMPUTER SCIENCE AND CHEMISTRY

NKONYENI, Simamkele

#### BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY MAJORING IN COMPUTER SCIENCE AND MANAGEMENT

DHLAMINI, Noxolo Patience MBELE, Nkosana MOLOTO, Thapelo Tshiamo Lesley MOTHOANE, Thapelo Dylan NDWENI, Nomthandazo Patricia NGOBENI, Honest Lifa SOMAI, Keeran Antonio XABA, Ntando Meshack

ZIQUBU, Nondumiso Nonhle

#### BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY MAJORING IN COMPUTER SCIENCE AND PHYSICS

BANDA, Sifiso Mirinda MTAMBO, Gugulethu Precious

#### BACHELOR OF SCIENCE MAJORING IN BOTANY AND LIFE SCIENCE

MAKHUBU, Thandi Marion MCHUNU, Gcinumusa MOTAUNG, Tshepo Edward NDIMANDE, Muzikayifani Penuel

#### BACHELOR OF SCIENCE MAJORING IN CHEMISTRY AND BOTANY

CARVALHO, Gcinile Blessing

KHUMALO, Londiwe Nokubongwa

KUMALO, Fisokuhle Innocentia

MAGUBANE, Silindile Noluthando

MDLALOSE, Minenhle Goodness

MOFOKENG, Sechaba

MONOKWANI, Motlalepula Albertina

MOSIKILI, Tshepo Success

MOTSIELOA, Lehlohonolo Tshepang



MZOLO, Siphumelele

THUGWANA, Nompumelelo Winile

TSHABALALA, Mohlophei Daniel

#### BACHELOR OF SCIENCE MAJORING IN CHEMISTRY AND PHYSICS

CHOEU, Gedro Malehudu FAKUDE, Tshepiso Jackson HADEBE, Nkosinathi MAROLE, Mbali MAZIBUKO, Celimpilo Nkosingiphile MNTAMBO, Teboho Morgan MOLEBATSI, Dineo NGCAPHU, Zukile NKOMO, Qiniso NTANDA, Nokuphila Olwethu NXUMALO, Philani SHABALALA, Bongokuhle SITHOLE, Mthokozisi ZUMA, Amanda

#### BACHELOR OF SCIENCE MAJORING IN CHEMISTRY AND ZOOLOGY

MAKHATHINI, Success Thenjiwe

#### BACHELOR OF SCIENCE MAJORING IN GEOGRAPHY AND ENVIRONMENTAL GEOGRAPHY

KUMALO, Keletso Confidence

LAKA, Magauta Annah

MADONSELA, Thobekile Sibusile MATSIKITLANE, Lefu Elias NDALENI, Dimakatso Dumisile Queen

NDIMA, Nosipho

NDWANDWE, Nokuphiwa Giftness

PLANK, Vuyelwa Patricia

SEHLANGU, Koketjo

SHABALALA, Nontobeko Nokuphiwa

SITHOLE, Nhlanhla Nhlakanipho

#### BACHELOR OF SCIENCE MAJORING IN GEOGRAPHY AND LIFE SCIENCES

CHONCO, Thabile Nomcebo HADEBE, Nombuso MAZIBUKO, Siphelele Thulisile MDLETSHE, Busiswa Mandy

#### BACHELOR OF SCIENCE MAJORING IN GEOGRAPHY AND TOURISM

ZONDI, Thandeka Charlotte

#### BACHELOR OF SCIENCE MAJORING IN LIFE SCIENCE

MOTSIMA, Mosele Margaret MSOMI, Qinisani Pearl NDLOVU, Ntokozo Sinenjabulo SEEQELA, Ntsibiseng Florance

#### BACHELOR OF SCIENCE MAJORING IN MATHEMATICS AND PHYSICS

MNGUNI, Mndeni Praise-God

#### BACHELOR OF SCIENCE MAJORING IN ZOOLOGY AND LIFE SCIENCE

MBHELE, Sibahle Ntonhle Lumkile RAMOSHEBI, Lebohang Sylvester SISHANGE, Nkanyiso Ntuthuko TSOSANE, Lerato Emily YONO, Mihlali Constance ZWANE, Menelisi Linda

#### **HONOURS DEGREES**

#### BACHELOR OF SCIENCE HONOURS MAJORING IN BOTANY

HENEMA, Nontuthuko Precious MABASO, Jabulani MAHLOMAHOLO, Thabo Benedict MASHAMBA, Tapiwanashe RADEBE, Ntombenhle THELETSANE, Kamohelo Chris TSHABALALA, Moiloa Godfrey

#### BACHELOR OF SCIENCE HONOURS MAJORING IN GEOGRAPHY

KEMP, Fallon Kagney\* MABASO, Sinenhlanhla



NATURAL AND AGRICULTURAL SCIENCES

#### BACHELOR OF SCIENCE HONOURS MAJORING IN PHYSICS

MOHAPI, Tshepo Karabo William

#### BACHELOR OF SCIENCE HONOURS MAJORING IN POLYMER SCIENCE

HLATSHWAYO, Mvikeli Victor MAZIBUKO, Thandiwe Portia MOKHESENG, Dilahloane Julia RAMAISA, Diteboho Stephen

#### BACHELOR OF SCIENCE HONOURS MAJORING IN ZOOLOGY

MACAMO, Engelinah Dikeledi

MOSIA, Rasekuwane

NTOMBELA, Njabulo Branden\*

SEFOJANE, Thlonolofatso Meokgo

#### **MASTER'S DEGREES**

#### MASTER OF SCIENCE MAJORING IN BOTANY

MOKOENA, Matshediso Anastacia

Title: ACARICIDAL ACTIVITY OF ARTEMISIA AFRA, EUCALYPTUS GLOBULUS AND TAGETES MINUTA AGAINST CATTLE TICKS IN QWAQWA, EASTERN FREE STATE PROVINCE

Supervisor: Prof AOT Ashafa

**Co-Supervisors:** Prof OMM Thekisoe and Dr N Nyembe

#### MORURI, Palesa

Title: ANTILEISHMANIAL ACTIVITY OF ROOT EXTRACTS FROM MORELLA SERRATA (MYRICACEAE)

Supervisor: Prof AOT Ashafa

Co-Supervisor: Prof DD N'da

**NGWENYA,** Samkelisiwe Precious\*

Title: MOLECULAR CHARACTERISATION OF SORGHUM CELL SUSPENSION CULTURES IN RESPONSE TO COMBINED HEAT AND OSMOTIC STRESSES

Supervisor: Dr R Ngara

MASTER OF SCIENCE MAJORING IN ENVIRONMENTAL GEOGRAPHY

SIKHOSANA, Kholeka Thembeka

Title: SEPARATE WORLD: A COMPREHENSIVE SPATIOTEMPORAL ANALYSIS OF SOCIAL COHESION IN THE GAUTENG GATED COMMUNITIES IN SOUTH AFRICA Supervisor: Prof G Mukwada Co-Supervisor: Dr E Adaqbasa

MASTER OF SCIENCE MAJORING IN GEOGRAPHY

MAREBANE, Surgeon Theepeng

Title: PUBLIC PARTICIPATION IN ENVIRONMENTAL DECISION-MAKING: A CASE OF GERT SIBANDE DISTRICT, MPUMALANGA PROVINCE, SOUTH AFRICA

Supervisor: Dr PS Mahasa

SETI, Nombasa Vuyokazi

Title: PRE AND POST LAND REFORM EFFECTS: A CASE STUDY OF SALEM COMMONAGE, EASTERN CAPE, SOUTH AFRICA

Supervisor: Prof SA Adelabu

MASTER OF SCIENCE MAJORING IN POLYMER SCIENCE

KHAMBULE, Samkelisiwe Portia

Title: SYNTHESIS AND CHARACTERISATION OF SANARIUM (III) DOPED ZnAl2O4 SPINEL -PCL NANOCOMPOSITE

Supervisor: Mrs MA Malimabe

Co-Supervisor: Prof LF Koao



MDLETSHE, Thabo Gift Samkele

Title: PREPARATION AND CHARACTERISATION OF HIGH-DENSITY POLYTHYLENE, PARAFFIN WAX AND GRAPHENE NANOPLATELETS (HDPE/M3 WAX/GNPs) NANOCOMPOSITE FROM-STABLE PHASE CHANGE MATERIALS

Supervisor: Dr ME Mngomezulu

Title: DOCUMENTING AVIAN DIVERSITY OF A HIGH-ALTITUDE WETLAND USING PASSIVE ACOUSTIC MONITORING: GOLDEN GATE HIGHLANDS NATIONAL PARK

MOSIKIDI, Toka\*

Supervisor: Prof A Le Roux

**Co-Supervisors:** Dr VR Clark, Dr KJ Lloyd and Dr NC Le Maitre

NGWENYA, Mbongeni

STANDER, Adriaan Hendrik

Title: OLIGO- AND CYCLOSILOXANE PHENYLTHIOPHENE NANOCELLULOSE COMPOSITES: SYNTHESIS AND CHARACTERIZATION FOR POTENTIAL ENERGY APPLICATION

Supervisor: Dr MA Sibeko

Co-Supervisor: Dr NF Molefe

#### MASTER OF SCIENCE MAJORING IN ZOOLOGY

DLAMINI, Nomasonto Portia

Title: ASSESSING THE ALLEVIATING EFFECTS OF BIOCHAR SOIL AMENDMENT ON EISENIA FETIDA (OLIGOCHAETA) EXPOSED TO SEWAGE SLUDGE AND GLYPHOSATE

Supervisor: Dr PV Otomo

**Title:** CREATING SPECIES SENSITIVITY DISTRIBUTIONS FOR INVERTEBRATES USING AVOIDANCE BEHAVIOUR

Supervisor: Dr PV Otomo



NATURAL AND AGRICULTURAL SCIENCES

#### **DOCTORAL DEGREES**

#### DOCTOR OF PHILOSOPHY MAJORING IN BOTANY

#### ADEYEOLUWA, Temitayo Esther

Temitayo Esther AdeyeOluwa was born in Ibadan, Nigeria on the 27th of July, 1982. She received her secondary education at the International School, Ibadan where she matriculated in the year 1999. She obtained her first degree and Master's degree in Veterinary Medicine in 2007 and 2011 respectively with awards and distinctions. She is a Fellow of the College of Veterinary Surgeons Nigeria [FCVSN]. Temitayo is dedicated to influencing science by investigating and analyzing natural remedies for metabolic diseases. She hopes to proffer solutions to health challenges in humans and animals with the use of functional foods and medicinal plants.

With her thesis, **AN IN VITRO COMPARATIVE STUDY ON THE ANTIOXIDANT, ANTIBACTERIAL AND ANTIDIABETIC POTENTIALS OF FIVE TROPICAL SPICES EMPLOYED AS TRADITIONAL THERAPY**, the candidate contributes to knowledge by addressing the use of the combination of five tropical spices in the management of diabetes mellitus and its underlying/associated conditions, such as, oxidative stress and bacterial infection, using in vitro assays. Temitayo investigated the effect of different alcoholic solvents in the optimal extraction of phytochemicals with known biological activities in achieving this aim. This study validates the traditional use of tropical spices in the management of diabetes mellitus and other metabolic diseases.

Promoter: Prof AOT Ashafa

Co-Promoter: Dr FO Balogun

#### VOUA OTOMO, Laetitia

Laetitia Voua Otomo matriculated in 1999 in Gabon. In 2000, she enrolled at the University of Science and Technology of Masuku, obtaining a Diplôme Universitaire d'Etudes Scientifiques (University Diploma of Scientific Studies) in 2003. In 2004, Laetitia joined the University of Stellenbosch (US) obtaining her BSc Honours in 2006. Her academic journey has been supported by merit bursaries such as the Zoology and Microbiology Merit Postgraduate Bursary, and an Award for Best academic MSc student in Biological programmes in 2013-2015, North-West University. In 2017, Laetitia enrolled at the University of the Free-State, QwaQwa, to pursue a PhD in Botany (phytomedicine).

With her thesis, **BIOACTIVITY, ISOLATION AND CHARACTERISATION OF COMPOUNDS FROM PLANTS USED AGAINST SECONDARY INFECTIONS ASSOCIATED WITH ELEPHANTIASIS IN KWAZULU-NATAL, SOUTH AFRICA,** Laetitia validated the use of traditional medicinal plants by healers and herbalists in the treatment and management of nonfilarial elephantiasis and its secondary infections. She screened 13 medicinal plants for biological activity, the presence of phytocompounds and cytotoxicity using human gut and rat cell lines, and isolated a pure compound resembling lidocaine from the most potent medicinal plant that displayed antimicrobial, anti-oxidant, anti-inflammatory and low cytotoxic properties.

Promoter: Dr LV Komoreng

Co-Promoters: Prof OMM Thekisoe and Dr S-L Steenhuisen



#### DOCTOR OF PHILOSOPHY MAJORING IN ENVIRONMENTAL GEOGRAPHY

#### CHIMVURAMAHWE, Joseph

Joseph Chimvuramahwe was born on 22 June 1972 in Bikita District, Masvingo Province in Zimbabwe. He received his secondary education in the same district, where he matriculated at Chirumba Secondary School in 1989. He obtained a Certificate in Agriculture at Esigodini in1992 and a Diploma in Agriculture at Gwebi Agricultural College in 1999. Later, he obtained a BSc Honours degree in Agriculture, and was awarded a book prize as best student and best researcher in 2006. He obtained a Master's degree in Agroforestry in 2009 and a Postgrad diploma in Tertiary Education in 2017. Both qualifications were awarded at Bindura University of Science Education where he is currently a full-time lecturer in the Department of Agriculture.

With his thesis, **THE MILITARIZATION OF CONSERVATION IN ZIMBABWE: DYNAMICS OF PRACTICES IN THE GONAREZHOU NATIONAL PARK (GNP) IN ZIMBABWE,** the candidate makes a contribution to a subject, which is currently under the spotlight. Informed by both the positivist and constructivist paradigms, the study employs the Sustainable Livelihood Framework Approach to assess the impact of militarization on vegetation protection, and availability of Non-Timber Forest Products (NTFPs) in the GNP and livelihoods of local communities. The major contribution of study is the recognition that militarized conservation has improved the protection of wildlife resources in GNP and has stimulated the diversification of the livelihoods of local communities. The study also shows that the sustainability of militarized conservation is questionable due to its exclusion of local communities from harvesting resources in the park, a phenomenon which is worsening park-community conflicts. The study concludes that park authorities should involve local communities in both conservation practices and benefit-sharing schemes in order for this approach to be sustainable.

Promoter: Prof G Mukwada

#### DOCTOR OF PHILOSOPHY MAJORING IN PHYSICS

#### MALIMABE, Moipone Alice

Moipone Alice Malimabe Mokoena was born in Petrus Steyn on the 8th June 1969. She attended a primary school at Letotolo. She received her secondary education in Witsieshoek and matriculated at Thokoana-Makaota SSS in 1988. She obtained the degree BSc (Chemistry and Physics) in 1991, HED in 1994, BSc (Hons) in Chemistry in 1995 the university of the north. The degree MSc (Polymer Science) in 2004 and PhD in Physics in 2021/2 at the University of the Free State. Her career started in high note at Tsebo SSS in 1992 as an educator (Mathematics and Physical Science). She excellently went through her career ladder till 1998 when she was appointed in the Chemistry Department to date as a Lecturer (Physical Chemistry) at the University of the Free State. Her passion, commitment and consistency made it easy to conclude PhD in recorded time.

With her thesis, **SYNTHESIS AND CHARACTERIZATION OF LANTHANIDES DOPED AND CO-DOPED ZNO NANOPHOSPHORS INCORPORATED INTO A POLYMER MATRIX**, the candidate makes a contribution in the quest to widen applications of polymer/ phosphor nanocomposites in polymer and energy industries. Europium (Eu) and cerium (Ce) doped and co-doped ZnO nanomaterials were successfully incorporated into polymer matrixes of poly (e- caprolactone) (PCL) and poly(vinyl chloride) (PVC). Influence of the nanomaterials on the properties of polymers as well as the possible resulting applications of the nanocomposite form an integral part of her study. The study aimed, firstly, to the investigate possible energy transfer processes between Ce3+ and Eu3+ ions in ZnO powders. Secondly, it was aimed at the general influence of nanopowders on the properties of polymer nanocomposites. The knowledge provocative results from her study were published in various high impact Journals accredited by the Department of Higher Education and Training (DHET).

#### Promoter: Dr LF Koao

Co-Promoter: Prof SV Motloung



NATURAL AND AGRICULTURAL SCIENCES

#### MUNGUTI, Lawrence Kioko

Lawrence Kioko Munguti was born on 04-08-1978 in Ngukemwe village, Masinga, Machakos County, Kenya. He attended Kituneni Primary School where he sat for his Kenya Certificate of Primary Education in 1992. He was then admitted to Masinga Boys' High School for his secondary education and sat for his Kenya Certificate of Secondary Education in 1996. Lawrence joined Egerton University where he graduated with his Bachelor of Education (Sciences) and later Kenyatta University, Kenya where he obtained an MSc in Physics. Munguti has worked as a high school teacher and was later contracted to South-Eastern Kenya University as a Tutorial Fellow to date.

With his thesis, **SYNTHESIS AND CHARACTERIZATION OF ZEOLITE SUPPORTED ZnO-TiO2 NANOCOMPOSITES FOR APPLICATION IN WATER PURIFICATION**, the candidate contributed to the development of high performing photocatalytic composites through the combination of commonly used catalytic materials namely ZnO and TiO2 and immobilizing them on a porous support material preferable zeolite. In the study, different material properties such as microstructural, optical, thermal, textural and photocatalytic properties were thoroughly investigated in relation to their effects on photodegradation of various water-based organic pollutants. Further, the effects of zeolite support and its contribution in overcoming the challenges of catalysts' deactivation due to particle agglomerations were studied. The high performing photocatalyst was obtained based on the optimized properties mentioned above.

Promoter: Prof FB Dejene

Co-Promoter: Dr MT Yihunie

#### MUTHEE, Dorah Kawira

Dorah Kawira Muthee was born on 27-09-1993 in Thamare village, Meru County-Kenya. She attended Wesley Primary School where she sat for her Kenya Certificate of Primary Education in 2007. She attended Kaaga girls High School for her secondary education and sat for Kenya Certificate of Secondary Education in 2011. Dorah graduated from Machakos University-Kenya in 2016 with her Bachelor of Education (Sciences) and then joined UFS-South Africa, attained Hons in physics (2019), and an MSc in Physics with a distinction (2020). Dorah has worked as a high school teacher and a research assistant at the UFS.

With her thesis, **IMPROVEMENT OF TITANIUM DIOXIDE PROPERTIES BY METAL DOPING FOR VISIBLE LIGHT PHOTOCATALYTIC WATER PURIFICATION APPLICATION**, the candidate contributed to the advancement of visible light performing photocatalysts through incorporation of Ag, Cu and Sn metal ions into TiO2 nanoparticles. In the study, different material properties such as structural, opto-electronic, morphological, and photocatalytic properties were thoroughly investigated in relation to their effects on photodegradation of various dyes. The nanoparticles with the favorable photocatalytic properties were obtained after optimization. Most of pure TiO2 nanoparticles are active at the UV light, while the metal doped TiO2 has properties favorable for visible photocatalytic activity. This positively impacted the water purification sector by the enabling utilization of the larger portion of the solar system.

Promoter: Prof FB Dejene

Co-Promoter: Dr I Taju

#### DOCTOR OF PHILOSOPHY MAJORING IN POLYMER SCIENCE

#### MOSOABISANE, Mafereka Francis Tyson

Mr Mafereka Francis T Mosoabisane completed his matric in 1998 at Paul VI High School in Mohale's Hoek district of Lesotho. In 2002 he registered for the University Career Preparation Programme (UCCP), a programme between Motheo College and the University of the Free State, which he completed with distinction before registering for a full B.Sc. degree in Chemistry the



following year at the University of the Free State on the Bloemfontein Campus. After completion of the B.Sc. (Honours) degree, he did an M.Sc. degree in Chemistry with the late Prof. Jan H. van der Westhuizen.

With his thesis, **MODELLING OF THE MORPHOLOGY AND PROPERTIES OF POLYETHYLENE/WAX BLENDS CRYSTALLISED UNDER DIFFERENT CONDITIONS**, he used computer modelling software to develop a model for linear low-density polyethylene (LLDPE), wax, and their blends, as well as to investigate their properties and how they interact. Molecular dynamics simulations of the glass transition temperature and solubility parameter were used to determine miscibility, while dissipative particle dynamics was used to study the morphologies of the LLDPE/wax blends. The interaction between wax and LLDPE at the molecular level agreed with the mesoscale simulations. The models also revealed that the wax chains interacted more strongly with the short LLDPE chains. Experimental investigations supported the models. Differential scanning calorimetry (DSC) showed that some wax molecules co-crystallised and melted with the LLDPE in the blends, while others crystallised separately between the LLDPE chains. There was no difference in the overall crystallisation of the LLDPE, the wax, or the blends, whether cooled slowly at room temperature or very fast when dropping the molten samples into liquid nitrogen. The DSC and X-ray diffraction results and the computer simulation results showed that adding wax increased the crystallinity of the blends.

Promoter: Prof AS Luyt

Co-Promoters: Dr EHG Langner and Dr CGCE van Sittert

#### DOCTOR OF PHILOSOPHY MAJORING IN ZOOLOGY

#### DE BRUIN, Phillippus Rudolf

Ruan de Bruin was born on 29 October 1987 in Pretoria, Gauteng, South Africa. He matriculated from Overkruin High School in 2005 and later attained a BSc degree specialising in Zoology from the University of Pretoria (UP) in 2009. He further obtained a BSc (Hons) degree in Zoology from UP in 2010 and a MSc with distinction specialising in Zoology from UP in 2012. He completed a two-year internship at the Steve Biko Academic hospital in 2018 and is currently working as a medical biological scientist specialising in embryology in the private sector.

With his thesis, **BEHAVIOURAL ENDOCRINOLOGY AND SPATIAL ECOLOGY OF BAT-EARED FOXES (OTOCYON MEGALOTIS)**, the candidate contributed to the field of zoology by investigating the potential interactions between the expression of social behaviour and hormone concentration in a socially monogamous canid from Southern Africa. De Bruin collected behavioural data during field observations of wild bat-eared foxes from the Kalahari, South Africa, while simultaneously collecting faecal samples that were used for endocrine monitoring. The study showed how the expression of positive and negative social behaviour related to specific circulating hormones like androgens and glucocorticoids. The candidate summarized the findings and proposed further methodologies to investigate and enhance the field of behavioural endocrinology using a socially monogamous canid from Southern Africa. The findings from this research have been published in both national and international peer-reviewed journals.

Promoter: Prof A Le Roux

Co-Promoter: Prof A Ganswindt

## THE SEANAMARENA THE TRADITIONAL BASOTHO BLANKET

1868618

## The Main Procession Graduation Gowns – embroidered with rich diversity

outh Africa, and the Free State in particular, has a long-standing friendship with our neighbouring country, Lesotho.

Through a shared history, we have become co-creators of our futures. For this reason, the UFS decided to incorporate our tradition with that of the Basotho in the design of our Main Procession graduation gowns.

The gowns are inspired by the Seanamarena – the traditional Basotho blanket. The different patterns on the Seanamarena indicate the status one holds in the Basotho nation or reflect the occasion being celebrated. Keeping the Seanamarena pattern in mind, we combined our traditional academic designs with that of the Basotho nation.

#### YOKE PATTERNS





#### Yoke pattern for the Chancellor and Vice-Chancellor

This Seanamarena pattern is an interpretation of a design – used exclusively for the king and chiefs – which means 'to swear by the king'. This blanket has the highest status of all Basotho blankets.

#### Yoke pattern for the Chairperson of the Council

This Seanamarena Victorian crest motif appeared after the visit of the Prince of Wales to Lesotho in 1925, which made a profound impression on the local people. Customers refer to this blanket as 'lesiba' – meaning feathers – when buying it.



#### Yoke pattern for the Vice-Rector

This Seanamarena Poone design symbolises good crops, wealth, and fertility. The Poone is given as a present to honour an important visitor.



#### Yoke pattern for Registrar

The same Seanamarena Poone design used for the Vice-Rector applies to the Registrar, with some slight design and colour alterations.

The Deans wear gowns made in the colours of the faculties, or others which indicate the office they hold.

## **CONGRATULATIONS** FROM THE ALUMNI OFFICE

Congratulations on your graduation and best wishes for your next adventure! We are very proud of you and your achievements.



Alumni are a real measure of a university's brand, and we strive to keep you informed of the latest news about our young leaders, pioneers, and the projects emerging from the UFS. We do this through our online platforms, social media, publications like **BULT** and events such as the **Chancellor's Distinguished Alumni Awards**. We hope that you will keep connected with your alma mater by sharing your future achievements with our alumni community.



#### **VOICES FROM THE FREE STATE**

Voices from the Free State is a series of alumni-initiated and -led personal podcast narratives by outstanding alumni of the UFS who reflect on their experiences at the UFS, telling their stories, and explaining how their university years shaped their future and paved the way for their respective successes. Join the **Voices from the Free State** podcast series as we release a new podcast featuring a different alumnus on the first Monday of each month throughout 2021.

#### A CONNECTED COMMUNITY

We exist not only to keep you connected to your alma mater but

#### THE ALUMNI TEAM



to help you stay connected to each other. We encourage engagement and networking opportunities through virtual or hybrid events, informal visits, and guest lectures. You can connect with alumni globally and reconnect with former peers through the Alumni Office.

#### **STRENGTHENING BONDS**

We value your financial contributions, your time, your skills, and your networks. Strengthen your bond with your alma mater by becoming involved in mentoring, projects, events, and initiatives aimed at creating a fulfilling student and alumni experience for fellow UFS students and alumni. For more information on impactful projects or to donate, visit our **do-nations webpage**.

#### HERE FOR YOU

We are the Alumni Office team, and we are here for YOU. Stay connected with us via email, our **website**, or social media (**Facebook** and **LinkedIn**). Ensure that you update your details with us regularly so that we may celebrate your unfolding journey and successes with you.

To update your details online at www.ufs.ac.za/alumni or email alumni@ufs.ac.za. Include your date of birth, cellphone number, and full names.

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



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