

## PROGRAMME

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### CALLIE HUMAN CENTRE, BLOEMFONTEIN CAMPUS

#### CONSTITUTION OF THE CONGREGATION

Chancellor  
Dr K Mokhele

#### OFFICIAL WELCOME AND WORD OF THANKS

Rector and Vice-Chancellor  
Prof FW Petersen

#### INTRODUCTION OF GUEST SPEAKER

Vice-Rector: Research  
Prof RC Witthuhn

#### GUEST SPEAKER

Member of the UFS Council, lawyer and businessman  
Dr MW Arnold

#### MUSICAL ITEM

'Summertime' (from the opera Porgy and Bess)  
Arrangement by A Esterhuyse  
Music by G Gershwin and lyrics by D Heyward and I Gershwin  
Performed by Ms C Yzelle

#### PRESENTATION OF MASTER'S CANDIDATES

Deans of the respective faculties

#### CONFERMENT OF MASTER'S DEGREES

Chancellor  
Dr K Mokhele

#### PRESENTATION OF DOCTORAL CANDIDATES

Deans and promoters of the respective faculties

#### CONFERMENT OF DOCTORAL DEGREES

Chancellor  
Dr K Mokhele

#### CONGRATULATORY MESSAGE

Chancellor  
Dr K Mokhele

#### NATIONAL ANTHEM OF SOUTH AFRICA

Led by Ms J Marais and accompanied by the Graduation Instrumental Ensemble  
under the direction of Mr A Esterhuyse

#### DISSOLUTION OF THE CONGREGATION

Chancellor  
Dr K Mokhele

6 DECEMBER 2018 | 14:30



# NATIONAL ANTHEM OF SOUTH AFRICA

## Nkosi sikelel' iAfrika

Maluphakanyisw' uphondo lwayo,  
Yizwa imithandazo yethu,  
Nkosi sikelela, thina lusapho lwayo.  
Morena boloka setjhaba 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:

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>• Please stand as the procession enters the hall</li><li>• Do not move around during the ceremony in order to take photos</li><li>• Please refrain from unacceptable actions such as whistling.<br/>Please put your cellphone on silent so as not to disturb the proceedings</li><li>• We strive to conduct the ceremonies in a dignified manner</li></ul> | <ul style="list-style-type: none"><li>• Please do not leave the hall before the graduation proceedings have been concluded</li><li>• Family and friends unable to attend may watch the full graduation ceremonies through our livestream link at <a href="http://livestream.ufs.ac.za">http://livestream.ufs.ac.za</a>.</li></ul> |
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## ABOUT THE UFS

The University of the Free State (UFS) is one of the oldest institutions of higher education in South Africa.

It opened its doors in 1904 in Bloemfontein as the Grey University College, with six students in the Humanities. Since then, the institution has grown to more than 40 000 students, spread over three campuses and across seven faculties (Economic and Management Sciences, Education, Health Sciences, the Humanities, Law, Natural and Agricultural Sciences, Theology and Religion).

Most of the students are located on the Bloemfontein Campus, with the Qwaqwa Campus situated in the picturesque Eastern Free State, serving a rapidly-growing number of rural students from the immediate area and surrounding provinces. The South Campus – also situated in Bloemfontein – serves as the centre for distance-learning programmes offered by the UFS, as well as alternative access to higher education for promising students who have not obtained the required marks in their final school examinations.

Over the years, the university has grown into an education hub which has positioned itself on the global stage, promoting research excellence, with exceptionally talented scholars and students who are recognised the world over, as well as alumni who have grown into influential leaders in society.





# 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.



**1935**

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.



**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.

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



# GRADUATION CEREMONY 2018

## Honorary Awards | Honorary Doctorates

1950	GLP Moerdyk – DLitt (h.c.)		A Polson – DPhilMed (h.c.)		GJ Gerwel – DPhil (h.c.)
1951	NC Havenga – LLD (h.c.)		J du P Scholtz – DPhil (h.c.)		WD Jonker – DTh (h.c.)
1952	Thos Blok – DEd (h.c.)	1986	S Grové – DMus (h.c.)		A Krog – DLitt (h.c.)
	SHS Rubidge – DSc (h.c.)		FP Retief – DMed (h.c.)		K Mokhele – DPhil (h.c.)
1955	CR Swart – LLD (h.c.)		JA Stegmann – DCom (h.c.)		CJC Nel (Postuum) – PhD (h.c.)
	CA v Niekerk – LLD (h.c.)	1987	WA Joubert – LLD (h.c.)		L Quayle – DMus (h.c.)
1958	CPB Brink – LLD (h.c.)		B Kok – DPhil (h.c.)		T (Karel) Schoeman – DLitt (h.c.)
	CF Visser – DEd (h.c.)		WP Venter – DCom (h.c.)		YK Seedat – DMed (h.c.)
1959	DB Bosman – DLitt (h.c.)	1988	JJN Cloete – DAdmin (h.c.)		MK Seely – DSc (h.c.)
	SP le Roux – DScAgric (h.c.)		FC Fensham – DLitt (h.c.)		C Seerveld – DPhil (h.c.)
	DF Malherbe – DLitt (h.c.)		JW vd Riet – DPhil (h.c.)		F van Z Slabbert – DPhil (h.c.)
	GH v Rooyen – MA (h.c.)	1989	BJ Meyer – DSc (h.c.)		JC Steyn – DLitt (h.c.)
1960	SPE Boshoff – DLitt (h.c.)		N van Uden – PhD (h.c.)		PA Verhoef – DTh (h.c.)
1961	T Boydell – DPhil (h.c.)	1990	MG Corbett – LLD (h.c.)		L van den Heever – LLD (h.c.)
1962	ES Botes – DEd (h.c.)		JS Rabie – DLitt (h.c.)		HA Wessels – LLD (h.c.)
	PE Rousseau – DSc (h.c.)	1991	SS Brand – DCom (h.c.)	2005	A du P Heyns – DMed (h.c.)
1963	EH Louw – LLD (h.c.)		JWL de Villiers – DSc (h.c.)		JJF Durand – DPhil (h.c.)
	EN Roberts – DSc (h.c.)		GT Fagan – DArch (h.c.)		JA Groenewald – DSc (h.c.)
	JGF (Kaalkop) vd Merwe – DCom (h.c.)		JH Hofmeyer – PhD (h.c.)		WH Neuser – DTh (h.c.)
	HF Verwoerd – DLitt et Phil (h.c.)	1992	E v Heerden – DLitt (h.c.)		M Ramos – PhD (h.c.)
1966	PSZ Coetzee – DPhilTh (h.c.)		JP Louw – DLitt (h.c.)		SJ Terreblanche – DCom (h.c.)
	PJ du Toit – DSc (h.c.)	1993	H Olivier – DSc (h.c.)	2006	T Moss – PhD (h.c.)
	MS Louw – DCom (h.c.)		JD Anderson – DMed (h.c.)		PV Cox – PhD (h.c.)
1967	SM Naudé – DSc (h.c.)		RR Arndt – DSc (h.c.)	2007	BJ (Bannie) Britz – DArch (h.c.)
	LC Steyn – LLD (h.c.)		SJ Naudé – LLD (h.c.)		KPD Maphalla – PhD (h.c.)
	BJ Vorster – LLD (h.c.)	1994	JJ Human – DPhil (h.c.)	2008	D Ferreira – DSc (h.c.)
1968	SJ Naudé – DCom (h.c.)		JA Myburgh – DMed (h.c.)	2009	JC Loock – PhD (h.c.)
1969	CW (Nellie) Swart – DPhil (h.c.)		JP vd Walt – DSc (h.c.)		LTC Harms – LLD (h.c.)
	AJJ Wessels – DCom (h.c.)	1995	WA Landman – DEd (h.c.)	2010	P Gordhan – PhD (h.c.)
1970	GS Nienaber – DLitt (h.c.)		WL Mouton – DPhil (h.c.)		BBS Ngubane – PhD (h.c.)
	HO Mönnig – DSc (h.c.)	1996	WDO Marasas – DSc (h.c.)		AH Strydom – PhD (h.c.)
1971	N Diederichs – DCom (h.c.)		NE Wiehahn – LLD (h.c.)		M Jones – PhD (h.c.)
	RS Verster – DPhil (h.c.)	1997	AP Brink – DLitt (h.c.)	2011	D Tutu – DTh (h.c.)
1972	LW Hiemstra – DPhil (h.c.)		B Hurwitz – DPhil (h.c.)		P Fourie – DLitt (h.c.)
	PJ Meyer – DPhil (h.c.)	1998	FC Müller – DMed (h.c.)		OG Winfrey – DEd (h.c.)
1975	PJ Nienaber – DLitt (h.c.)	1999	FM Claerhout – DPhil (h.c.)		RWM Frater – PhD (h.c.)
	De la H de Villiers – DScAgric (h.c.)		JJF Hefer – LLD (h.c.)	2012	A Sawyer – DEd (h.c.)
	GJ Stander – DSc (h.c.)		S Nigam – DSc (h.c.)		RJ Goldstone – LLD (h.c.)
1976	AJA Roux – DSc (h.c.)		WL Nkuhlu – DCom (h.c.)		ER v Heerden – DLitt (h.c.)
1978	SP Botha – DSc (h.c.)		MA Ramphela – DPhil (h.c.)		M Nussbaum – DLitt (h.c.)
	EM van Zinderen Bakker – DSc (h.c.)		HJO van Heerden – LLD (h.c.)		OW Prozesky – MD (h.c.)
	HB Thom – DEd (h.c.)		FJ van der Merwe – PhD (h.c.)		FDJ Brand – LLD (h.c.)
1979	FCL Bosman – DPhil (h.c.)	2000	MH Daling – DCom (h.c.)	2013	ZKG Mda – DLitt (h.c.)
	G Cronjé – DSocSc (h.c.)		TN Liversedge – PhD (h.c.)	2014	ML Blum – PhD (h.c.)
	CJF Human – DCom (h.c.)		I Mahomed – LLD (h.c.)		L Mulvey – DLitt (h.c.)
1980	G Boonzaier – DPhil (h.c.)	2001	BP Gilbertson – DCom (h.c.)	2015	L Brahimi – DPhil (h.c.)
1981	PW Botha – DPhil (h.c.)		NR Mandela – LLD (h.c.)		JM Samuel – DEd (h.c.)
	B Human – DCom (h.c.)		EC Taglauer – DSc (h.c.)		MA Oduyoye – DTh (h.c.)
	SG Shuttleworth – DSc (h.c.)	2002	BH Meyer – PhD (h.c.)		JD Sacks – DEcon (h.c.)
1982	BLS Franklin – DPhil (h.c.)		BAK Rider – LLD (h.c.)	2016	RJ Khoza – DEcon (h.c.)
	GvN Viljoen – DEd (h.c.)		CF Slabber – PhD (h.c.)		TA Manuel – DEcon (h.c.)
1983	L Luyt – DCom (h.c.)		JM Stetar – DEd (h.c.)		M du Preez – PhD (h.c.)
	SF Zaiman – DPhil (h.c.)	2003	EWA de Corte – DEd (h.c.)		J Samoff – DPhil (h.c.)
1984	HS Steyn – DSc (h.c.)		HA Serebro – DPhil (h.c.)		F Haffajee – PhD (h.c.)
	FR Tomlinson – DScAgric (h.c.)		AG Sykes – DSc (h.c.)	2017	PH Holloway – DSc (h.c.)
	JH vd Berg – DMed (h.c.)	2004	S Badat – DPhil (h.c.)		M Botha – LLD (h.c.)
1985	L Alberts – DSc (h.c.)		R Bringle – DPhil (h.c.)		
	GG Cillie – DPhil (h.c.)		J de Wet – DMus (h.c.)		
	SPD le Roux – DLitt (h.c.)		CF Fauconnier – LLD (h.c.)		

## Shields of Honour, Council and Chancellor's Medals

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

# MESSAGE FROM THE RECTOR AND VICE-CHANCELLOR

## Dear Student

**C**ongratulations on obtaining your degree! Graduation is a significant and memorable day and a culmination of the time you spent here at the University of the Free State (UFS). As a postgraduate student, you have become part of a fraternity of exceptional individuals who have graduated before you. There is nothing more fulfilling than walking across the stage and being capped, conscious of the fact that you have achieved what you set out to do in your academic career.

As a university recognised for academic excellence and quality education, we are proud to confer this postgraduate degree upon you. You should indeed consider this as one of your greatest achievement in life. You truly proved your dedication and perseverance. I want to personally congratulate you for being such a huge success and setting a good example for others.

I join those who have helped you along the way to this big day – including your supervisor, fellow students, friends, and loved ones – in applauding you for all the hard work and perseverance that has made this moment possible. Enjoy and celebrate this exceptional day with your family and friends.

Remember that you will always be a member of the Kowsie family. We encourage you to stay connected with the university, to become an active member of the alumni, and to give back by supporting your alma mater. The continued involvement of our alumni strengthens the university and its community. We hope that you are equally pleased to be part of the special community of alumni of this 114-year old institution, and that you will keep in touch with the UFS.



With this shared sense of achievement, it is hoped that you had a challenging and enriching learning experience at the UFS and that you learnt about the value of succeeding in your goals. The UFS is, after all, a place that inspires excellence and transforms lives.

I wish you all the best for your future endeavours and that you will achieve more success after your postgraduate studies.

Best wishes

**Prof Francis Petersen**  
**Rector and Vice-Chancellor**  
**University of the Free State**



## VISION

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**  
Dr K Khotso Mokhele  
PhD (UCD, USA)



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



**CHAIR OF COUNCIL**  
Mr W Louw  
MEng (CIVIL) (SU)



**VICE-RECTOR:  
RESEARCH**  
Prof RC Witthuhn  
PhD (UFS)



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



**VICE-RECTOR:  
INSTITUTIONAL CHANGE,  
STUDENT AFFAIRS  
AND COMMUNITY  
ENGAGEMENT**  
Prof P LenkaBula  
PhD (UNISA)



**ACTING VICE-RECTOR:  
ACADEMIC**  
Prof HJ Kroukamp  
DPhil (UPE)



**ACTING REGISTRAR:  
GOVERNANCE AND  
POLICY**  
Mrs JH van Pletzen  
MA (UFS)



**ACTING REGISTRAR:  
SYSTEMS AND  
ADMINISTRATION**  
Mr A Naidoo  
MBA (UP-GIBS)



**CAMPUS PRINCIPAL:  
SOUTH CAMPUS**  
Prof D Coetzee  
PhD (UFS)



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



**PRESIDENT OF  
CONVOCATION**  
Prof JU Grobbelaar  
DSc (UFS)





## DEANS



**ACTING DEAN:  
ECONOMIC AND  
MANAGEMENT SCIENCE**

Prof P Burger  
PhD (UFS)



**DEAN:  
EDUCATION**

Prof LC Jita  
PhD (MSU)



**DEAN:  
HEALTH SCIENCES**

Prof GJ van Zyl  
PhD (UFS)



**DEAN:  
THE HUMANITIES**

Prof H Hudson  
PhD (UFS)



**DEAN:  
LAW**

Prof JC Mubangizi  
LLD (UDW)



**DEAN:  
NATURAL AND  
AGRICULTURAL SCIENCES**

Prof PD Vermeulen  
PhD (UFS)



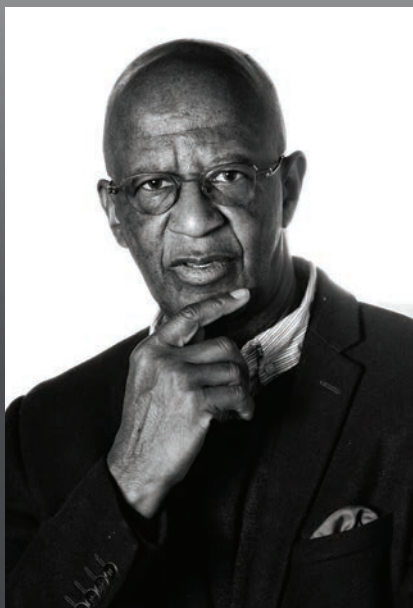
**DEAN:  
THEOLOGY AND RELIGION**

Prof SD Snyman  
DD (PRET)

## GUEST SPEAKER

### DR MILLARD ARNOLD

Member of UFS Council, Lawyer and Businessman



**D**r Millard Arnold is a lawyer, businessman, former diplomat, professor of law, journalist, lecturer, actor, author, and prize-winning photographer. His rich career showcases his strong analytical and negotiating skills, strategic effectiveness,

motivational leadership, political sensitivity, commitment to excellence, and a proven performance record of success in challenging situations. Dr Arnold considers himself fortunate and blessed to have had so many opportunities – because ultimately, it is about opportunities and getting a chance to live such a full life.

While serving in the military, his career in journalism started almost by chance. He joined the *Washington Post* in Washington DC after qualifying in Public Relations with a BA degree (Cum Laude) from

Howard University in Washington, DC. He continued to study at the University of London and the London School of Economics before completing a Juris Doctorate at the University of Notre Dame in Notre Dame, Indiana.

Dr Arnold authored *Steve Biko: Black Consciousness in South Africa*, published by Random House, and served as the US Deputy Assistant Secretary of State for Human Rights and Humanitarian Affairs. After holding leadership positions at various American-based institutions, he became involved in African countries as, among others, Executive Director and Group Legal Counsel at Murray and Roberts Ltd. in Johannesburg. He continues to hold advisory and leadership positions in several institutions, including Chief Executive Officer for the South African Business Schools Association, senior advisor at Bowmans, and chairman for Project UBU – working to combine the idea of a universal basic income with blockchain-housed cryptocurrency. In 2018, Dr Arnold was elected as member of the University of the Free State Council.

#### PLEASE NOTE

List of candidates receiving degrees, diplomas and certificates:

Degrees, diplomas, and certificates of candidates who are unable to attend the graduation ceremony will be conferred in absentia.

An \* next to a name indicates that the degree, diploma or certificate is awarded with distinction.



**ACTING DEAN |  
PROF P BURGER**

## **MASTER'S DEGREES**

### **MASTER OF BUSINESS ADMINISTRATION**

DE KLERK, Christiaan Johannes

MAHAPA, Mokoteli Gregorius  
Nuzianzenus

MAZIBUKO, Bongani Vincent

TSOTETSI, Hlabanyane Kekeletso  
Kethabile

### **MASTER OF COMMERCE WITH SPECIALISATION IN BUSINESS MANAGEMENT**

DIPPENAAR, Zané

**Dissertation Title:** TECHNOLOGY  
TRANSFER OFFICES AND  
UNIVERSITY-INDUSTRY  
RELATIONSHIPS: THE ROLE OF  
RELATIONSHIP MARKETING

**Supervisor:** Dr K Booysen

**NENGOMASHA, Melatia Chipo\***

**Dissertation Title:**  
ENTREPRENEURIAL INTENTION  
AND PERCEIVED ACCESS  
TO FINANCE: THE ROLE OF  
ENTREPRENEURIAL SELF-  
EFFICACY

**Supervisor:** Prof BN Neneh

### **MASTER OF DEVELOPMENT STUDIES**

CHUMA, Brendah Siamanjime

DITHEJANE, Tebogo Moremi

MUSAKA, Chipiwa Beatrice

### **MASTER OF PUBLIC ADMINISTRATION**

DUNN, Grace Felicia

MOLEFI, Malereko Aletta

STRYDOM, Riaan Charles

WERNER, William Peter





DEAN |

**PROF LC JITA**

## MASTER'S DEGREES

### MASTER OF ARTS IN HIGHER EDUCATION STUDIES

**WILSON, Dijana**

**Dissertation Title:** STUDENT-LECTURER DIALOGUE IN AN EXTENDED TEACHING AND LEARNING ENVIRONMENT AT A UNIVERSITY OF TECHNOLOGY

**Supervisor:** Dr SP van Tonder

**Co-Supervisor:** Dr JH van Schoor

### MASTER OF EDUCATION WITH SPECIALISATION IN CURRICULUM STUDIES

**GCOBO, Nositembele Colleen**

**Dissertation Title:** INFORMATION AND COMMUNICATION TECHNOLOGY INTEGRATION IN CURRICULUM PRACTICE IN THE RURAL SCHOOLS

**Supervisor:** Dr MD Tshelane

**KUBHEKA, Pretty**

**Dissertation Title:** STRENGTHENING THE TEACHING OF MINI PRACTICAL ASSESSMENT

TASKS IN A SENIOR PHASE TECHNOLOGY CLASS

**Supervisor:** Prof MM Nkoane

**Co-Supervisor:** Prof MG Mahlomaholo

**LEGODU, Glen Lentikile**

**Dissertation Title:** A STRATEGY TO ENHANCE TEACHING AND LEARNING OF THEORETICAL PROBABILITY THROUGH THE USE OF A SCHOOL VEGETABLE GARDEN

**Supervisor:** Prof MM Nkoane

**Co-Supervisor:** Prof MG Mahlomaholo

**MBATHA, Zwelinjane Meshack**

**Dissertation Title:** DEVELOPING A FRAMEWORK OF PARENTAL INVOLVEMENT TO ENHANCE ACADEMIC PERFORMANCE OF LEARNERS IN SCHOOLS

**Supervisor:** Dr BB Moreeng

**Co-Supervisor:** Mr SA Ntsala

**RAMANEMANE, Mabasias Motheba Magret**

**Dissertation Title:** SUPPORTIVE FRAMEWORK FOR CURRICULUM PRACTICE IN A GRADE 8 MULTIPLE ABILITIES CLASS

**Supervisor:** Dr MD Tshelane

**Co-Supervisor:** Prof MM Nkoane

**TLOU, Pinkie Sibongile Evidence Happiness**

**Dissertation Title:** A STRATEGY TO COMBAT BULLYING IN PRIMARY SCHOOLS IN THE OSIZWENI CIRCUIT

**Supervisor:** Prof MM Nkoane

**Co-Supervisor:** Prof MG Mahlomaholo

### MASTER OF EDUCATION WITH SPECIALISATION IN EDUCATION MANAGEMENT

**KHOARANE, Khoarane Jeremiah**

**Dissertation Title:** A PATHWAY TO ENRICH SCHOOL PRINCIPALS' RELATIONAL LEADERSHIP

**Supervisor:** Prof MM Nkoane

**Co-Supervisor:** Prof MG Mahlomaholo

**KHUMALO, Nozipho Prudence**

**Dissertation Title:** A PROFESSIONAL DEVELOPMENT FRAMEWORK TO EMPOWER THE SCHOOL MANAGEMENT TEAM IN FINANCIAL MANAGEMENT

**Supervisor:** Prof MM Nkoane

**Co-Supervisor:** Prof MG Mahlomaholo

**MAHAYE, Gabriel Reginald**

**Dissertation Title:** FOSTERING CO-OPERATIVE GOVERNANCE IN PUBLIC FARM SCHOOLS



**Supervisor:** Prof MM Nkoane

**Co-Supervisor:** Prof MG  
Mahlomaholo

## MASTER OF EDUCATION WITH SPECIALISATION IN EDUCATION MANAGEMENT AND LEADERSHIP

**HORNE,** Johann Nico

**Dissertation Title:** DYNAMICS OF  
SCHOOL-BASED MANAGEMENT  
IN PREVIOUSLY DISADVANTAGED  
SCHOOLS IN SOUTH AFRICA

**Supervisor:** Dr BO Plaatjies

## MASTER OF EDUCATION WITH SPECIALISATION IN POLICY STUDIES AND GOVERNANCE IN EDUCATION

**MOELETSI,** Kolisang Kenneth\*

**Dissertation Title:** THE *LESOTHO  
GENERAL CERTIFICATE OF  
SECONDARY EDUCATION*  
(2013): SCHOOL PRINCIPALS'  
EXPERIENCES WITH  
IMPLEMENTATION

**Supervisor:** Dr A le Roux

**MPHUTLANE,** Limpho Hilda

**Dissertation Title:** ENHANCING  
LEARNER DISCIPLINE IN LESOTHO  
SCHOOLS: THE POTENTIAL OF  
RESTORATIVE DISCIPLINE

**Supervisor:** Dr KLG Teise

**Co-Supervisor:** Dr L Jacobs

**SHOZI,** Nonhlanhla Gugulethu

**Dissertation Title:** A STRATEGY TO  
IMPROVE IMPLEMENTATION OF  
SAFETY POLICIES IN SELECTED  
SCHOOLS IN OSIZWENI

**Supervisor:** Prof MM Nkoane

**Co-promoter:** Prof MG Mahlomaholo

## MASTER OF EDUCATION WITH SPECIALISATION IN PSYCHOLOGY OF EDUCATION

**MBATHA,** Ncamisile Emelina

**Dissertation Title:** A STRATEGY  
FOR ENHANCING THE TEACHING  
OF ENGLISH LITERACY TO  
DYSLEXIC FOUNDATION PHASE  
LEARNERS

**Supervisor:** Dr MF Tlali

**Co-supervisor:** Dr JS Kabi

**MOHLABI,** Retselisitsoe Grace

**Dissertation Title:** A CRITICAL  
PEDAGOGICAL APPROACH  
TO IMPROVING LEARNING  
SUPPORT SERVICES PRACTICES  
IN A SPECIAL MAINSTREAM  
CLASSROOM

**Supervisor:** Dr J Ramohai

**Co-Supervisor:** Prof D Hlalele



DEAN |

**PROF GJ VAN ZYL**

## THE SCHOOL OF ALLIED HEALTH PROFESSIONS

### MASTER'S DEGREES

#### MASTER OF ARTS IN HUMAN MOVEMENT SCIENCE

**DU PLESSIS**, Annemarie

**Dissertation Title:** THE ROLE OF DOMESTIC WORKERS, AS CHILD CARERS, IN THE STIMULATION OF MOTOR DEVELOPMENT OF PRE-SCHOOL CHILDREN IN BLOEMFONTEIN, SOUTH AFRICA

**Supervisor:** Prof FF Coetzee

**Co-Supervisor:** Prof S van Vuuren

#### MASTER OF SCIENCE IN DIETETICS

**SPIES**, Hermina

**Dissertation Title:** NUTRITIONAL STATUS, KNOWLEDGE, ATTITUDE AND PRACTICES OF PATIENTS RECEIVING MAINTENANCE HAEMODIALYSIS IN BLOEMFONTEIN, SOUTH AFRICA

**Supervisor:** Prof VL van den Berg

#### MASTER OF OCCUPATIONAL THERAPY

**HOMAN**, Adeleigh\*

**Dissertation Title:** TOWARDS OCCUPATIONAL ENABLEMENT: EXPERIENCES OF THE ECD PRACTITIONERS REGARDING THE CROSSTRAINER PROGRAMME

**Supervisor:** Prof S van Vuuren

**Co-Supervisor:** Ms D de Villiers

#### MASTER OF SCIENCE IN PHYSIOTHERAPY WITH SPECIALISATION IN SPORTS PHYSIOTHERAPY

**HAUMAN**, Danielle

WHIPLASH ASSOCIATED DISORDERS IN MIXED MARTIAL ARTS ATHLETES

**Supervisor:** Dr R Smith

## THE SCHOOL OF MEDICINE

### MASTER'S DEGREES

#### MASTER OF MEDICAL SCIENCE WITH SPECIALISATION IN HAEMATOLOGY AND CELL BIOLOGY

**MALEKA**, RETHABILE BRIGETTE

**Dissertation Title:** VALIDATION OF A VON WILLEBRAND FACTOR PROPEPTIDE ASSAY

**Supervisor:** Prof M Meiring

**Co-Supervisor:** Prof R Bragg

#### MAGISTER OF MEDICINE IN CLINICAL PATHOLOGY

**PEBANE**, Mpho Mereki McDonald

#### MASTER OF MEDICINE IN ANAESTHESIOLOGY

**GROBBELAAR**, Laurence Edward

**PHEIFFER**, Lukas Marthinus

#### MASTER OF MEDICINE IN CARDIOTHORACIC SURGERY

**MYBURGH**, Martin

#### MASTER OF MEDICINE IN FAMILY MEDICINE

**NAIR**, Arun

#### MASTER OF MEDICINE IN HAEMATOLOGY

**VAN MARLE**, Anne-Cecilia

#### MASTER OF MEDICINE IN INTERNAL MEDICINE

**LOEBENBERG**, Perry\*

**MAWILA**, Seva Daniel





## MASTER OF MEDICINE IN NEUROSURGERY

CROOK, Byron Martin

## MASTER OF MEDICINE IN OBSTETRICS AND GYNAECOLOGY

BERNARD, Nicolas Johannes

MAKHELE, Arabang Angelina

POTGIETER, Petrus Dirk

## MASTER OF MEDICINE IN OPHTHALMOLOGY

NGETU, Lumko Robert

## MASTER OF MEDICINE IN PAEDIATRICS

ELOFF, Sheila

## MASTER OF MEDICINE IN PLASTIC SURGERY

SPRUYT, Gerard Max Frederik

## MASTER OF MEDICINE IN PSYCHIATRY

BANTOBETSE, Mpho Lesego

DU TOIT, Andreas Bernardus  
Johannes

PIENAAR, Jeannette Marjorie

SETLABA, Nkomile Ntswaki  
Clourinah

## THE SCHOOL OF NURSING

### MASTER'S DEGREES

#### MASTER OF SOCIAL SCIENCE IN NURSING

BRUWER, Fébé Antoinette\*

**Dissertation Title:** A SURVEY OF  
VENOUS ULCER CARE IN WOUND  
CARE PRACTICES IN GAUTENG

**Supervisor:** Prof Y Botma

**Co-Supervisors:** Prof M Mulder and  
Rev C Grobler

DAMANE, Malehlohonolo Bernadett

**Dissertation Title:** NURSES'  
KNOWLEDGE ATTITUDES AND  
PRACTICES TOWARD MENTAL  
ILLNESS IN MAFETENG DISTRICT,  
LESOTHO

**Supervisor:** Dr I Venter

RAMOKHITLI, Maseisa Jane

**Dissertation Title:** A DESCRIPTION  
OF NURSE AND MIDWIFERY  
EDUCATORS' SELF-DIRECTION IN  
LEARNING IN LESOTHO

**Supervisor:** Prof A Joubert

**Co-Supervisor:** Dr M Wilke



DEAN |  
**PROF H HUDSON**

## MASTER'S DEGREES

### MASTER OF ARTS IN AFRICA STUDIES

**NÖTHLING**, Michelle \*

**Dissertation Title:** A QUALITATIVE EXPLORATION OF IDENTITY AMONG MOTHERS OF RAPE-BORN CHILDREN CONCEIVED DURING THE 1994 RWANDAN GENOCIDE: A SECONDARY DATA ANALYSIS

**Supervisor:** Prof P Gobodo-Madikizela

**Co-Supervisor:** Dr S van Schalkwyk

### MASTER OF ARTS IN CLINICAL PSYCHOLOGY

**VAN DER MERWE**, Jaco

### MASTER OF ARTS IN COMMUNICATION SCIENCE

**LITABE**, Boitumelo Keneuoe

**Dissertation Title:** FOLKTALES AS RHETORICAL COMMUNICATION

**Supervisor:** Dr LL Terblanche

### MASTER OF ARTS IN COMMUNICATION SCIENCE

### WITH SPECIALISATION IN MEDIA STUDIES AND JOURNALISM

**FEKISI**, Linda Ncumisa Xoliswa

**Dissertation Title:** A COMPARISON OF DRUM'S COVERAGE OF THE 1976 SOWETO UPRISING AND THE 2015 #FEESMUSTFALL PROTESTS

**Supervisor:** Dr W Marais

**LETSHABA**, Teboho Simon

**Dissertation Title:** A COMPARISON OF THE FRAMING OF THE OSCAR PISTORIUS POST-MURDER TRIAL IN THE CITIZEN AND THE STAR

**Supervisor:** Dr W Marais

### MASTER OF ARTS IN DRAMA AND THEATRE ARTS

**HOFFMAN**, Michelle Kim

**Dissertation Title:** EMBLEMATIC FEATURES OF FICTIONAL FEMALE AFRIKANER CHARACTERS IN SELECTED SOUTH AFRICAN TELEVISION AND THEATRE PRODUCTIONS

**Supervisor:** Mr DC Cloete

**Co-supervisor:** Prof NJ Luwes

**SMITH**, Nelien

**Dissertation Title:** TOWARDS A PRELIMINARY TAXONOMY OF

MULTI-SENSORY DEPRIVATION/ STIMULATION THEATRE FOR THE ANALYSIS OF SELECTED PLAYS

**Supervisor:** Prof NJ Luwes

**Co-Supervisor:** Mr DC Cloete

**VAN DER BIJL**, Marli \*

**Dissertation Title:** NARRATIVE AND STRUCTURAL CHARACTERISTICS OF SOUTH AFRICAN ONE-PERSON MUSICALS

**Supervisor:** Mr DC Cloete

**Co-Supervisor:** Dr AMF de Villiers

### MASTER OF ARTS WITH SPECIALISATION IN AFRIKAANS AND DUTCH

**KOTZE**, Adèle

**Dissertation Title:** MERKERS VAN NOSTALGIE IN SUID-AFRIKAANSE ADVERTENSIES AAN DIE HAND VAN 'N DEELTEORETIESE KONSTRUK VAN DIE SOSIALE REPRESENTASIE-TEORIE

**Supervisor:** Prof A van Niekerk

### MASTER OF ARTS WITH SPECIALISATION IN ENGLISH

**LOUW**, Hendrik Brand

**Dissertation Title:** A CRITICAL ANALYSIS OF THE SOCIAL CONSTRUCTION OF GENDER AND



GENDER PERFORMATIVITY IN THE  
SELECTED NOVELS BY GOWDA,  
HASHIMI AND HOSSEINI

**Supervisor:** Dr M Brooks

**Co-supervisor:** Prof I Manase

## MASTER OF ARTS WITH SPECIALISATION IN POLITICAL SCIENCE

**SWART**, Marno Jakobus

**Dissertation Title:** IS IT WHAT  
YOU SAY OR IS IT WHAT YOU  
DO? OFFENSIVE REALISM,  
LIBERAL INTERNATIONALISM AND  
INTELLIGENCE SERVICES

**Supervisor:** Dr E Coetzee

## MASTER OF GOVERNANCE AND POLITICAL TRANSFORMATION

**KHOLOANYANE**, Teboho Adam

**LOGABANE**, Karabo Digracior

**MBAMBO**, Linda Edward

## MASTER OF SOCIAL SCIENCE IN CLINICAL PSYCHOLOGY

**LE ROUX**, Simoné

## MASTER OF SOCIAL SCIENCE WITH SPECIALISATION IN PSYCHOLOGY

**BEKKER**, Constance Jesse

**Dissertation Title:** THE  
DIMENSIONS OF EMERGING  
ADULTHOOD IN FIRST- AND  
CONTINUOUS-GENERATION  
STUDENTS

**Supervisor:** Prof L Naudé

## MASTER OF SOCIAL SCIENCE WITH SPECIALISATION IN SOCIOLOGY

**YENA**, Gcobisa

**Dissertation Title:** BLACK AFRICAN  
SINGLE MOTHERS PREVIOUSLY  
AFFECTED BY VIOLENCE AND  
TRAUMA: NARRATIVES OF  
EXPERIENCE IN THE MLUNGISI  
TOWNSHIP, QUEENSTOWN.

**Supervisor:** Prof JK Coetzee





DEAN |

**PROF JC MUBANGIZI**

## **MASTER'S DEGREES**

### **MASTER OF LAWS WITH SPECIALISATION IN CONSTITUTIONAL LAW AND LEGAL PHILOSOPHY**

**KNOETZE, Adriaan Stephanus\***

**Dissertation Title:** THE RIGHT TO  
CONSCIENTIOUS OBJECTION  
AGAINST ADMINISTERING  
EUTHANASIA IN THE CONTEXT  
OF THE RIGHT TO FREEDOM OF  
RELIGION

**Supervisor:** Prof SA de Freitas

### **MASTER OF LAWS WITH SPECIALISATION IN FINANCIAL PLANNING LAW**

**CHARSLEY, John Oliver**

### **MASTER OF LAWS WITH SPECIALISATION IN INTERNATIONAL ECONOMIC LAW**

**JERE, Chola Charmaine**



DEAN |

**PROF PD VERMEULEN**

## AGRICULTURAL SCIENCES

### MASTER'S DEGREES

#### MASTER OF AGRICULTURE WITH SPECIALISATION IN AGRICULTURAL MANAGEMENT

**MOGANO**, Mathule William

**Dissertation Title:** SOCIO  
ECONOMIC FACTORS AS  
DETERMINANTS OF ACCESS TO  
INPUT SUBSIDY: THE CASE OF  
SMALLHOLDER FARMERS OF  
POLOKWANE

MUNICIPALITY

**Supervisor:** Dr JIF Henning

**Co-Supervisor:** Dr AC Geyer

#### MASTER OF SCIENCE IN AGRICULTURE WITH SPECIALISATION IN AGRICULTURAL ECONOMICS

**BRANDT**, Philip Paul

**Dissertation Title:** THE IMPACT  
OF DEBT STRUCTURES ON  
REPAYMENT CAPACITY OF  
FARMERS

**Supervisor:** Dr JIF Henning

**Co-Supervisor:** Prof BJ Willemse

**MUTHELO**, Dakalo

**Dissertation Title:** PERCEPTION  
AND ADAPTATION STRATEGIES  
OF SMALLHOLDER FARMERS TO  
DROUGHT IN FREE STATE, SOUTH  
AFRICA

**Supervisor:** Dr AA Ogundeji

#### MASTER OF SCIENCE IN AGRICULTURE WITH SPECIALISATION IN ANIMAL SCIENCE

**ELS**, Stephanus Phillippus

**Dissertation Title:** THE EFFECT  
OF DIETARY LIPID SOURCE  
AND INCLUSION LEVEL ON  
PRODUCTION PERFORMANCE,  
CARCASS TRAITS AND MEAT  
QUALITY OF BROILERS

**Supervisor:** Dr FH de Witt

**Co-Supervisor:** Prof A Hugo

**SEDUMEDI**, Tshepiso Arnold

**Dissertation Title:** THE EFFECT OF  
DIFFERENT EXTENDERS ON THE  
VIABILITY OF FROZEN-THAWED  
SEMEN USING LAPAROSCOPIC  
ARTIFICIAL INSEMINATION ON  
LACTATING SAANEN GOATS

**Supervisor:** Mr B Raito

**Co-supervisor:** Prof JPC Greyling

#### MASTER OF SCIENCE IN AGRICULTURE WITH SPECIALISATION IN FOOD SCIENCE

**MOTSAMAI**, Valentia Kholofelo

**Dissertation Title:** OIL QUALITY OF  
CACTUS PEAR (OPUNTIA FICUS-  
INDICA AND OPUNTIA ROBUSTA)  
SEEDS

**Supervisor:** Dr M de Wit

**Co-supervisor:** Prof A Hugo

#### MASTER OF SCIENCE IN AGRICULTURE WITH SPECIALISATION IN PLANT BREEDING

**HUSSELMAN**, Johannes Herman

**Dissertation Title:** INDUCED  
MUTATION AND DISTANT  
HYBRIDISATION AS BREEDING  
TECHNIQUES TO IMPROVE PAPAY

**Supervisor:** Dr A van Biljon

**Co-Supervisor:** Dr R van der Merwe  
and Dr Z Bijzet

**LANDMAN**, Nicolaas Johannes

**Dissertation Title:** CORRELATION  
BETWEEN GENETIC DISTANCES  
AND HETEROSIS IN MAIZE (ZEA  
MAYS L.)



**Supervisor:** Dr A van Biljon

**Co-Promoters:** Prof L Herselman  
and Mr DV Leeuwner

## MASTER OF SCIENCE IN AGRICULTURE WITH SPECIALISATION IN SOIL SCIENCE

**MATHINYA,** Virginia Neo

**Dissertation Title:** SALINITY EFFECTS  
ON GRAIN YIELD AND QUALITY  
OF MALT BARLEY IN IRRIGATED  
SOILS WITH WATER TABLES

**Supervisor:** Dr JH Barnard

**Co-Supervisor:** Prof LD van  
Rensburg

**VENTER,** Andrie Elize

**Dissertation Title:** BEHAVIOUR OF  
MONOAMMONIUM PHOSPHATE  
IN ALKALINE AND CALCAREOUS  
SANDY SOILS

**Supervisor:** Prof CC du Preez

## MASTER OF SUSTAINABLE AGRICULTURE

**BIRENGE,** Johnbosco

## BUILDING SCIENCES

### MASTER'S DEGREES

## MASTER OF URBAN AND REGIONAL PLANNING

**DE RIDDER,** Thomas

**Dissertation Title:** AN  
INVESTIGATION INTO DIGITAL  
PLACE MARKETING PRACTICES  
OF SELECTED SOUTH AFRICAN  
LOCAL MUNICIPALITIES AND  
COMMUNITIES

**Supervisor:** Prof V Nel

**Co-Supervisor:** Dr DF Toerien

**MAFOSO,** Mpho

**TSIKI,** Khoatsana Kelebohile

## NATURAL SCIENCES

### MASTER'S DEGREES

## MASTER OF DISASTER MANAGEMENT

**KHUMALO,** Vuyiswa Sinenhlanhla

**KUBHEKA,** Bongeka Nokwethemba

**LOUW,** Izak Jacobus\*

**MALOKA,** Lucia

**SERAGE,** Kgadiko Lucas

## MASTER OF ENVIRONMENTAL MANAGEMENT

**MAKHETHA,** Matela Edward

**MULOVHEDZI,** Azwifaneli Veronica

**NIIPALE,** Sheehamandje Johannes

**TSHIKALANGE,** Bridget

## MASTER OF MINERAL RESOURCE MANAGEMENT

**DIMMICK-TOUW,** Mark Daniel\*

## MASTER OF SCIENCE IN HOME ECONOMICS

**SWART,** Petro Zondagh\*

**Dissertation Title:** DEVELOPMENT  
AND CONSUMER ACCEPTABILITY  
OF A POTATO-BASED VEGETABLE  
CHIP FOR PRE-SCHOOLERS IN  
SOUTH AFRICA

**Supervisor:** Dr C Bothma

**Co-Supervisors:** Dr I van der Merwe  
and Prof A Hugo

## MASTER OF SCIENCE WITH SPECIALISATION IN BIOCHEMISTRY AND PLANT BREEDING

**VAN DER LOO,** Almari MJ

**Dissertation Title:** AN ANALYTICAL  
PRE-BREEDING METHOD FOR  
FLAVONOID SCREENING IN  
GRAPEFRUIT

**Supervisor:** Prof MT Labuschagne

**Co-supervisors:** Prof G Osthoff and  
Dr Z Bijzet

## MASTER OF SCIENCE WITH SPECIALISATION IN BOTANY

**DE JAGER,** Johannes Cornelis Linde

**Dissertation Title:** POLLEN  
TRANSFER EFFICIENCY AND  
BREEDING SYSTEM IN SOUTHERN





AFRICAN PERIPLOCOIDEAE  
(APOCYNACEAE)

**Supervisor:** Dr L Joubert

**Co-Supervisor:** Prof SD Johnson

## MASTER OF SCIENCE WITH SPECIALISATION IN CHEMISTRY

**ESTERHUYSEN, Marisca**

**Dissertation Title:** SYNTHESIS,  
STRUCTURE AND BIOLOGICAL  
STUDY OF GALLIUM(III)  
COMPLEXES AS MODEL  
RADIOPHARMACEUTICALS

**Supervisor:** Prof A Roodt

**Co-Supervisor:** Dr A Brink and Prof  
HG Visser

**GANTSHO, Verity Lindiwe**

**Dissertation Title:** A  
STRUCTURAL AND MECHANISTIC  
INVESTIGATION OF THE  
FORMATION OF Re(I) DICARBONYL  
COMPLEXES

**Supervisor:** Prof HG Visser

**Co-Supervisor:** Dr M Schutte-Smith

**KANKWANZI TUIPENDE, Roy**

**Dissertation Title:** ZIRCONIUM  
AND HAFNIUM SEPARATION IN  
DIFFERENT INORGANIC AND  
NATURAL COMPOUNDS

**Supervisor:** Prof W Purcell

**Co-Supervisor:** Dr M Nete

**MAROGOA, Reabetswe Mamathye  
Nina**

**Dissertation Title:** SYNTHESIS  
AND CHARACTERIZATION OF  
ARSENOPLATIN COMPOUNDS  
FOR APPLICATION AS POTENTIAL  
ANTI-CANCER AGENTS

**Supervisor:** Prof HG Visser

**Co-supervisor:** Dr M Schutte-Smith

**MOGALE, Refilwe**

**Dissertation Title:** ZIF-8 AND  
NH<sub>2</sub>-MIL-53(AI) AS SUPPORTS  
FOR Pd AND Ag CRYSTALLITES  
WITH APPLICATIONS IN  
HETEROGENEOUS CATALYSIS

**Supervisor:** Dr EHG Langner

## MASTER OF SCIENCE WITH SPECIALISATION IN ENTOMOLOGY

**KAY, Bianca Jayde\***

**Dissertation Title:** THE  
EVALUATION AND COMPARISON  
OF VARIOUS PLANT EXTRACTS  
FOR THE MANAGEMENT OF  
LUCILIA SPP.

**Supervisor:** Dr VR Swart

**Co-Supervisor:** Dr E van der Watt

## MASTER OF SCIENCE WITH SPECIALISATION IN GENETICS

**NXUMALO, Khanyisani Sikelela**

**Dissertation Title:** A GENETIC  
ASSESSMENT OF SOUTH  
AFRICAN NGUNI SHEEP BREEDS  
USING STR MARKERS AND THE  
OVINE50K SNP ASSAY

**External Supervisors:** Prof JP  
Grobler and Dr NO Mapholi

**Internal Supervisor:** Dr K Ehlers

## MASTER OF SCIENCE WITH SPECIALISATION IN MATHEMATICAL STATISTICS

**TEISE, Chandré Laverne**

**VAN DER MERWE, Catherina Gezina  
Johanna**

**Dissertation Title:** CAUSAL  
INFERENCE ON SOUTH AFRICAN  
HOME LOAN TAKE UP RATES  
USING PROPENSITY SCORE  
METHODS

**Supervisor:** Dr S van der Merwe

## MASTER OF SCIENCE WITH SPECIALISATION IN MICROBIOLOGY

**MOKOENA, Nthabiseng Zelda**

**Dissertation Title:**  
CAENORHABDITIS ELEGANS AS  
MODEL FOR CANDIDA ALBICANS-



*PSEUDOMONAS AERUGINOSA*  
CO-INFECTION AND INFECTION  
INDUCED PROSTAGLANDIN  
PRODUCTION

**Supervisor:** Prof CH Pohl-Albertyn

**Co-Supervisor:** Prof J Albertyn

**SAAIMAN**, Susanna Elizabeth

**Dissertation Title:** FERMENTATION  
AND GAS BUBBLE FORMATION IN  
PSYCHROPHILIC YEASTS

**Supervisor:** Prof CH Pohl-Albertyn

**Co-Supervisors:** Prof PWJ van Wyk  
and Dr CW Swart-Pistor

## MASTER OF SCIENCE WITH SPECIALISATION IN PLANT BREEDING

**MMEREKI**, Keneilwe Palesa\*

**Dissertation Title:** IMPROVED  
FUSARIUM HEAD BLIGHT  
RESISTANCE IN THE SOUTH  
AFRICAN CULTIVAR KROKODIL

**Supervisor:** Prof L Herselman

**Co-Supervisor:** Dr A Minnaar-Ontong

## MASTER OF SCIENCE WITH SPECIALISATION IN STATISTICS

**MOKHELE**, Moletenyane Tankiso

**Dissertation Title:** THE  
ASSOCIATION OF STATISTICS  
ANXIETY, ATTITUDE TOWARD

STATISTICS AND MATHEMATICS  
SELF-CONCEPT WITH  
PERFORMANCE IN A BUSINESS  
STATISTICS COURSE

**Supervisor:** Dr L van der Merwe

**Co-Supervisor:** Dr M von Maltitz

## MASTER OF SCIENCE WITH SPECIALISATION IN ZOOLOGY

**BOPHEKA**, Luthando

**Dissertation Title:** MORPHOLOGY  
AND TAXONOMY OF BLOOD  
PARASITES OF SELECTED FISH  
SPECIES IN SOUTHERN AFRICA

**Supervisor:** Dr J van As

**Co-Supervisor:** Prof LL van As



THEOLOGY AND RELIGION  
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# FACULTY OF THEOLOGY AND RELIGION

DEAN |

**PROF SD SNYMAN**

## **MASTER'S DEGREES**

**MASTER OF THEOLOGY  
WITH SPECIALISATION IN  
SPIRITUALITY**

DE WET, Jacoba Barendina\*

NEL, Roelof Johannes



ACTING DEAN |

**PROF P BURGER**

## DOCTORAL DEGREES

### DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN BUSINESS ADMINISTRATION

**LETELE**, Moeketsi Joseph

Moeketsi Joseph Letele was born in Moyeni, Lesotho, on 11 March 1982, and matriculated at Paul VI High School in 1998. He obtained a Bachelor of Science with Education in 2004 at the National University of Lesotho. He acquired a Bachelor of Education Honours (with distinction) (2007) and Master of Education (2009) at the University of the Free State. In 2012, he received a Master of Business Administration, and in 2016 a Master of Financial Management at Amity University under the Pan-African E-Network project. He started teaching in 2004, and in 2010 he was appointed as lecturer; currently, he is the Deputy Registrar: Academic Quality Assurance at the Limkokwing University of Creative Technology, Lesotho Campus.

With his thesis, ***AN EMPLOYEE SATISFACTION MANAGEMENT FRAMEWORK FOR THE TEXTILE AND GARMENT INDUSTRY IN LESOTHO***, the candidate researched the practice of managing employee satisfaction in the textile and garment industry in Lesotho, contributing to the knowledge of employee satisfaction from a management perspective. Following a pragmatic paradigm and a convergent mixed-methods approach, he developed a framework for managing employee satisfaction. The framework integrates pertinent factors and strategies for managing satisfaction at individual, organisational, and industrial levels in the textile and garment industry. The contribution of the study is evident on the industrial level, elucidating leading-edge factors of employee satisfaction and improvement strategies. The findings strengthen the role of industry stakeholders to manage employee satisfaction effectively and emphasise collective action as a critical intra- and inter-level strategy to enhance employee satisfaction in the textile and garment industry in Lesotho.

**Promoter:** Dr L Massyn

### DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN ECONOMICS

**DHORO**, Netsai Lizy

Netsai Lizy Dhoro was born in Masvingo, Zimbabwe on 10 April 1982. She received her secondary education in Masvingo, where she matriculated at Masvingo Christian High School in 2000. She obtained the degrees Bachelor of Science in Economics Honours and Master of Science in Economics at the University of Zimbabwe in 2004 and 2010 respectively. She started her career as a junior lecturer in Economics at the Chinhoyi University of Technology in May 2005. In October 2010, she was appointed as lecturer in the Department of Economics at the Great Zimbabwe University, a post she still holds.





With her thesis, ***HOUSEHOLD FOOD GARDENS AS HIV AND AIDS IMPACT MITIGATION STRATEGY IN POOR URBAN COMMUNITIES: AN ECONOMIC ANALYSIS***, the candidate makes a contribution towards a comprehensive understanding of the role of household food gardens in HIV- and AIDS-impact mitigation. The study shows that within the informal urban food system, household food gardens are an important component of the food supply system and that household food gardens are an essential livelihood strategy. The study also provides evidence that the adoption of household food gardens is associated with lower levels of food poverty. Findings also show how the use of garden produce enhance the availability of and access to food, contributing positively to household food security and nutrition. Overall, the informal household food garden is an important strategy for realising improvements in food access in poor urban communities, which is instrumental in eradicating hunger and achieving food security and nutrition, and thus promoting community health.

**Promoter:** Prof FLR Booysen

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN INDUSTRIAL PSYCHOLOGY

**HARUNAVAMWE, Martha**

Martha Harunavamwe was born in Masvingo, Zimbabwe, on 19 July 1984. She received her high school education in Gutu, Zimbabwe, where she completed her A Level at Dewure High School in 2003. She obtained her Honours in Industrial Psychology (BComHons) at the University of Fort Hare in 2008. In 2010, she obtained her Master of Commerce in Industrial Psychology at the University of Fort Hare. In August 2015, she was appointed at the University of the Free State as a lecturer in the Department of Industrial Psychology.

With her thesis, ***THE EFFECT OF PSYCHOLOGICAL CAPITAL, SELF-LEADERSHIP AND JOB EMBEDDEDNESS ON WORK ENGAGEMENT AMONG EMPLOYEES IN THE BANKING SECTOR***, the candidate makes a contribution to the positive organisational scholarship indicating strategies that can be applied to boost work engagement in the banking sector. The study outlines how adequate psychological resources such as hope, self-efficacy, and components of self-leadership and job embeddedness (links) may contribute to work engagement, which in turn leads to a number of positive outcomes. With this contribution, she discovered that hope, self-efficacy, optimism, organisational links, and behavioural strategies make a significant contribution to variance in work engagement. No significant differences were found in levels of work engagement with regard to age. The recommendations and results serve as an indication that work engagement can be promoted by stimulating personal and psychological resources such as hope, self-efficacy, optimistic beliefs, constructive thought patterns, and organisational links.

**Promoters:** Prof E van Zyl and Prof P Nel

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN INDUSTRIAL PSYCHOLOGY

**PIETERS, Wesley Reginald**

Wesley Reginald Pieters was born in Gobabis, Namibia, on 5 August 1985. He received his secondary education in Windhoek, Namibia, where he matriculated at Ella du Plessis High School in 2003. At the University of Namibia, he obtained a BA degree



in English and Industrial Psychology, an Honours degree in 2008, and an MA degree in Industrial Psychology in 2011. In 2015, he was appointed as a lecturer in Industrial Psychology in the Department of Human Sciences: Psychology Section at the University of Namibia in Windhoek, where he is still employed.

With his thesis, ***THE EFFECT OF JOB ATTITUDES, JOB EMBEDDEDNESS AND WORK ENGAGEMENT ON TURNOVER INTENTION OF ACADEMIC STAFF AT THE UNIVERSITY OF NAMIBIA***, the candidate makes a contribution to the investigation of turnover intention and retention strategies of academic staff members at the University of Namibia. With this contribution, he attempts to assess the impact of job attitudes, job embeddedness, and work engagement on turnover intention. Significant predictors of turnover intention include effective commitment, dedication, organisational sacrifice, and autonomy. None of the biographical dimensions reported a significant difference in relation to how academics experienced turnover intention. The recommendations and results serve as an indication of the value of democratic decision-making, team-building activities, staff development, and skills-advancement initiatives to foster positive job attitudes, work engagement, productivity, and retention of scarce academic resources.

**Promoters:** Prof E van Zyl and Prof P Nel



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**PROF LC JITA**

## DOCTORAL DEGREES

### DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN COMPARATIVE EDUCATION AND EDUCATION MANAGEMENT

**GUVHU**, Rosemary

Rosemary Guvhu was born on 13 September 1968 in the Wiltshire African Purchase Area of Chivhu, Mashonaland, Zimbabwe. She matriculated at Gutu High School in 1988 and later attained a Diploma in Education, with a book prize and trophy as the best student at Hillside Teachers' College in 1992. She graduated with a BEd degree at Zimbabwe Open University (ZOU) in 2003, and a Master of Education at the University of Zimbabwe in 2009. Her career as a teacher started in 1993 and she rose through the ranks to become a school principal and part-time lecturer at the Great Zimbabwe University.

With her thesis titled, ***PRINCIPAL LEADERSHIP AND THE INTEGRATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES FOR TEACHING AND LEARNING IN ZIMBABWE***, the candidate contributes to scholarship on instructional leadership and ICT integration, focusing on how principals lead in the use of ICTs for subject teaching and learning. Using a mixed-methods approach, Guvhu sampled 280 principals in Zimbabwe in order to understand and explain the role of principal leadership in the implementation of the ICT integration policy for teaching and learning. While most principals appeared to have limited knowledge of ICTs and how to integrate them in subject teaching, they were more knowledgeable about their roles as instructional leaders. This positively correlated with how they enacted the ICT integration policy in schools. The study presents the argument that the knowledge, perceptions, and beliefs of the various school principals shape the differential implementation trajectories and practices of the ICT integration policy in the schools of Zimbabwe.

**Promoter:** Prof LC Jita

**Co-Promoter:** Dr T Jita

### DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN CURRICULUM STUDIES

**KHUMALO**, Witness Sibongile

Witness Sibongile Khumalo was born in Madadeni on 4 May 1969. She received her secondary education in Madadeni, where she matriculated at Sekusile High School in 1987. She obtained a Primary Teachers Diploma in 1993, Further Diploma in School Management in 1997, Bachelor of Education Hons in 2000, as well as the degree Magister Educationis in 2006 at the University of Johannesburg. She started her career as an educator at Simanganyawo Primary School in 1993. In 2007, she was appointed in the Department of Education as senior Education specialist, as coordinator for the Masifundisane Project, and at present she is the HIV/AIDS Life Skills Coordinator at Amajuba District Office.



With her thesis, **FRAMEWORK TO IMPROVE IMPLEMENTATION OF THE PEER EDUCATION PROGRAMME AT A SECONDARY SCHOOL**, the candidate makes a contribution to the design of a framework to improve implementation of the PEP. This framework provides valuable support to learners who are prone to social ills. For operationalisation of the research objectives, the principle of analytic dualism was adopted. Realist social theory was adopted as a theoretical framework, because of its agenda of striving for social transformation, as well as promoting equality, which are foundational doctrines. Empirical data was generated, using the participatory action research approach. Data was analysed using critical discourse analysis, because of its capacity to recognise occurrences of inequality and confrontation to immoral and underserved hegemony relations. Results show components of the framework: ensuring adequate time allocation; encouraging active stakeholder participation; understanding social norms and attitudes; provision of adequate training; and participative democracy for social justice in education.

**Promoter:** Prof MM Nkoane

**Co-Promoter:** Prof MG Mahlomaholo

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN CURRICULUM STUDIES

**LESAOANA**, Matseliso Augustina

Matseliso Lesaoana was born in Roma, Lesotho on 1 August 1968. She completed her Cambridge Overseas Secondary Certificate (COSC) at St Mary's High School. She obtained a BAEd degree from the National University of Lesotho in 1991, BEdHons in Educational Management and Leadership in 2009, PGDE in 2010, MEd in 2012, and PhD in Curriculum Studies at the University of the Free in 2018. She started her teaching career in 1991, and in 2013 she joined Machabeng College where she is presently the Extended Essay and Theory of Knowledge Coordinator.

With her thesis, **TEACHERS' PERSPECTIVES OF A TRANSFORMATIVE HISTORY CURRICULUM IN LESOTHO HIGH SCHOOLS**, the candidate contributes to the field of History teaching in schools. This contribution raises awareness of the challenges and possible solutions that History teachers are confronted with in teaching History in a transformative manner that responds to the current curriculum changes in Lesotho. The study further provides an in-depth analysis of how transformative curriculum can aid in the development of historical knowledge and skills. Findings from empirical research pointed to a lack of sufficient knowledge and understanding of a transformative curriculum, which resulted in ineffective implementation. These results serve as an indication that policy makers should ensure that curriculum change is well managed. Continuous teacher development programmes, support, and resources should be provided to ensure meaningful and effective implementation of the curriculum.

**Promoter:** Dr BB Moreeng

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN CURRICULUM STUDIES

**NHLAPO**, Mzamane Richman

Mzamane Nhlapo was born on 1 November 1960 in Butha-Buthe, Lesotho. He matriculated at Butha-Buthe High School in 1981; obtained a Secondary Teachers' Certificate from the National Teachers' Training College (Lesotho,





1988), a BAEd from the National University of Lesotho (1993); an MA in Educational Management from the University of Bath (UK, 1998); and completed a PhD at the University of the Free State in 2018. Mr Nhlapo started his career as a secondary school teacher (1988), and later served the Ministry of Education as a principal between 1993 and 2013. He is currently a Geography teacher at Khukhune High School in Lesotho.

With his thesis, ***FOSTERING SELF-RELIANCE THROUGH INTEGRATED TOURISM CURRICULUM: A COMMUNITY PARTICIPATION APPROACH***, the candidate makes a contribution to the body of knowledge pertaining to integrated curriculum and tourism education. With this contribution, he attempts to show, through community participation in participatory action research, how self-reliance can be fostered among learners. Using creative, practical, productive entrepreneurial skills and experiential knowledge of ordinary community members, learners were trained to make and sell crafts to generate income for survival and schooling. The results of this investigation serve as an indication of the value this type of intervention holds for the attempt to find solutions for alleviating poverty and unemployment within the communities of Lesotho.

**Promoter:** Dr BB Moreeng

**Co-Promoter:** Dr ML Malebese

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN CURRICULUM STUDIES

**TIMIRE, Joel**

Joel Timire was born in Gweru, Zimbabwe on 24 June 1967. He received his secondary education in Mazowe, where he matriculated at Shingirirayi Secondary School in 1986. He obtained a diploma in Education in 1990 at the Belvedere Technical Teachers' College, the degree BEd (Technical Education) with 1st class in 1997, and the MEd (Technical Education) degree in 2007 at the University of Zimbabwe. He started his career as an educator in Harare in 1991. In 2005, he was appointed as lecturer in the Department of Educational Technology at Seke Teachers' College.

With his thesis, ***MECHANICAL TECHNOLOGY TEACHER EDUCATION CURRICULUM ALIGNMENT TO PRACTICE: TOWARDS A CONCEPTUAL FRAMEWORK***, the candidate contributes to the study of teacher knowledge frameworks in analysing the conceptual and empirical perspectives of Mechanical Technology teachers. The study explores the discipline-specific teacher knowledge frameworks required for effective alignment of pre-service teacher training programmes and practice. The findings of the study suggest that pre-service Mechanical Technology teachers lack the discipline-specific practical exposure and pedagogic knowledge required to integrate theoretical knowledge within practical activities. Pre-service teachers that major in Mechanical Technology were not exposed to vigorous practical training, resulting in them focusing more on teaching theory to the detriment of cultivating practical skills and habits (of minds) as prescribed in the schooling curriculum. The development of the discipline-specific teacher competencies is critical for the cultivation of a technologically literate society. The study recommends a technical teacher training framework that integrates the discipline-specific theoretical and practical knowledge with industry-relevant student exposure.

**Promoter:** Dr NJP Teis

**Co-Promoter:** Prof MG Mahlomaholo



## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN HIGHER EDUCATION STUDIES

**BADENHORST**, Johannes Jochemus Cilliers

Johannes Jochemus Cilliers Badenhorst was born in Bloemfontein on 1 April 1958. He received his secondary education in Bloemfontein, where he matriculated at the Dan Pienaar Secondary School in 1975. He obtained the BSc degree in 1980, BEd degree in 1983, and the MEd (Historical and Comparative Education) degree in 1995 at the University of the Free State. He started his career as a teacher in Theunissen in 1980. In 1986, he was appointed in the Head Office of the Free State Department of Education. At present, he is the Deputy Director: e-Learning and Educational Technology at the Central University of Technology, Free State.

With his thesis, ***A MULTI-DIMENSIONAL FRAMEWORK FOR DETERMINING THE VALUE OF E-LEARNING IMPLEMENTATION IN HIGHER EDUCATION***, the candidate contributed to the critical debate in higher-education institutions about the value of continued investment in e-learning implementation at these institutions. With this contribution, he attempts to develop a multi-dimensional framework that incorporates the e-learning as well as managerial success factors for an e-learning ecosystem implementation at higher-education institutions. University management can creatively apply the SILSTI-CAQ framework to determine the value and success of an e-learning ecosystem implementation. The results of this investigation serve as an indication of the value that the SILSTI-CAQ framework intervention holds for the attempt to evaluate the e-learning ecosystems for a university, and to inform management when future investment in the e-learning ecosystem is required.

**Promotor:** Prof JC Cronjé

**Co-Promoter:** Prof A Fossey

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN HIGHER EDUCATION STUDIES

**STEYN**, Johannes Cornelius

Johan Steyn was born in Bloemfontein on 24 July 1968 and matriculated from Jim Fouche High School in 1986. He obtained a BCompt degree in 1990, a BComptHons degree in 1992 (University of South Africa), and an MBA degree in 2003 (University of Wales). He is a qualified chartered accountant (SA) and a certified internal auditor. He started his career at SARS in 1993, was employed as internal auditor at the then Technikon Free State in 1994 and as senior lecturer in the Department of Accounting and Auditing at the Central University of Technology since 1999.

With his thesis, ***A TEACHING AND LEARNING FRAMEWORK TO FACILITATE SOFT SKILLS DEVELOPMENT IN INTERNAL AUDIT UNIVERSITY STUDENTS***, the candidate makes a significant contribution to the practical and theoretical body of knowledge in the field of teaching and learning of Internal Auditing at university level, specifically pertaining to the



development of soft skills. The proposed teaching-learning framework is based on sound theoretical and empirical findings and was validated by a panel of experts in the disciplines of Internal Auditing and/or higher education. It provides significant guidance on the soft skills categories which should be developed in Internal Audit university students as well as alternative teaching-learning activities which might best address such development. The framework should benefit Internal Audit university facilitators and students, as well as employers of Internal Audit graduates.

**Promoter:** Dr A du Plessis

**Co-Promoters:** Dr SP van Tonder and Prof GP Coetzee





DEAN |

**PROF GJ VAN ZYL**

## THE SCHOOL OF ALLIED HEALTH PROFESSIONS

### DOCTORAL DEGREES

#### DOCTOR OF PHILOSOPHY IN NUTRITION

**TURKSON**, Rose Kokui Dufe

Rose Kokui Dufe Turkson was born in Accra, Ghana on 5 September 1978, matriculating from the Holy Child School, Ghana in 1996. She obtained her BSc (Hons) in Community Nutrition (2003) at the University for Development Studies in Tamale, Ghana; the MSc Dietetics (2006) at the University of Ghana; and the PhD in Nutrition (2017) at the University of the Free State. She started her career as Acting District Nutrition Officer in the Savelugu Nanton district, Ghana in 2003. In 2007, she was appointed in the Ghana Police Service as a dietician in the rank of Inspector and later Chief Inspector. Presently, she is a lecturer at the National University of Lesotho (Head of Department from 2015 to 2017).

With her thesis, ***THE IMPACT OF A NUTRITION AND PHYSICAL ACTIVITY INTERVENTION PROGRAMME ON FRAILTY SYNDROME IN ELDERLY CITIZENS IN LESOTHO***, the candidate makes a meaningful contribution to understanding how a fermented milk and exercise programme impacts on measures of frailty, malnutrition, and associated factors in the elderly of Lesotho. Following a cross-sectional survey of 300 elderly participants, a pre-test–post-test study design was applied in 120 frail elderly people. These participants were divided into three groups of 40 each who received the fermented milk and exercise intervention; only the fermented milk intervention; and a control group. After 12 weeks, the intervention did not succeed in significantly improving measures of frailty in this sample. The candidate applied syndemic theory to propose how the dire socio-economic conditions, high HIV prevalence, caregiving responsibilities, and food insecurity experienced by participants, complicate the situation of the elderly in developing countries.

Promoter: Prof CM Walsh

## THE SCHOOL OF NURSING

### DOCTORAL DEGREES

#### DOCTOR OF PHILOSOPHY IN NURSING

**HUGO**, Lizemari

Lizemari Hugo was born in Reitz on 28 February 1982. She received her secondary education in Reitz, where she matriculated at Reitz High School in 2000. She obtained her BSocSci degree in 2004, master's degree in Nursing with distinction in



2016, and the PhD in Nursing in 2018 at the University of the Free State. She started her career as a registered nurse in Bloemfontein in 2005. In 2013, she was appointed in the School of Nursing, and at present, she is a lecturer at the University of the Free State.

With her thesis, **DEVELOPMENT AND IMPLEMENTATION OF A TRAINING PROGRAMME FOR PRECEPTORS: A REALIST EVALUATION**, the candidate makes two significant contributions to the clinical teaching of nurses in the form of a systems model for preceptorship and a training manual for preceptors. The candidate developed a peer-reviewed user-friendly preceptor-training programme for nursing-education institutions that emphasise the development of clinical thinking operations. The preceptor-training programme was piloted at a university-based nursing-education institution. On completion of the pilot study, she conducted a realist evaluation to determine what works for who under which circumstances. The result of the realist evaluation is a refined programme theory based on the adaptations she made to the clinical training model. Both contributions might have a significant influence on the experiential learning of Nursing students in the future.

**Promoter:** Prof Y Botma



DEAN |

PROF H HUDSON

## DOCTORAL DEGREES

### DOCTOR OF PHILOSOPHY IN MUSIC

LEAL, Sheldon Rocha

Sheldon Rocha Leal was born in Johannesburg to Portuguese immigrants on 4 August 1976. His secondary education was completed at Glenvista High School, Johannesburg, in 1994. He obtained a BA degree in Law/Psychology from UNISA in 1998, a BMusHons in Music Education/Technology/Arts and Culture Management in 2013, and a master's degree in Music Industry/Education in 2015 at the University of Pretoria, the latter two with distinction. He started his career as a lecturer in Sandton at Allenby Campus in 2002. He was appointed as head of Popular Music at the National School of the Arts in Braamfontein, Johannesburg in 2003, national head of Sound Engineering/Contemporary Music at Damelin in Sandton in 2004, and head of operations and director of Culture/Music at Southdowns College in Irene, Pretoria, in 2008.

In his thesis, ***TRANSFORMING HIGHER EDUCATION IN SOUTH AFRICA THROUGH THE CREATION OF A MUSIC INDUSTRY RELATED BACCALAUREATE***, the candidate endeavoured to establish how the creation of a music industry-related baccalaureate could transform higher-music education in SA to better prepare graduates for jobs in the MI and open higher-music education to a wider range of prospective students. He designed a framework for a proposed Bachelor of Music Business based on his investigation of various curriculum design methodologies, MI qualifications offered at universities internationally, and interviews with stakeholders occupying strategic positions in the MI in South Africa. The candidate subsequently interviewed a second group of MI stakeholders about the content of the proposed framework, enabling conclusions, and recommendations. It was found that a qualification based on the proposed framework may have excellent potential to support transformation of higher-music education in South Africa.

**Promoter:** Dr MJ Thom Wium**Co-promotor:** Dr SP van Tonder

### DOCTOR OF PHILOSOPHY IN MUSIC

SALONEN, Bridget Louise

Bridget Salonen was born in Cape Town in 1967 and matriculated at Rustenburg Girls' High School (1984). Her qualifications include Licentiate of the Royal Schools of Music (1988), BA (1989, UCT), PGDipMus (1991, UCT, concerto with distinction), and Licensed Andover Educator (2010). Starting her career as Co-Principal Flute in the CAPAB orchestra, she then became the Solo Principal Flute of the Cape Town Philharmonic Orchestra, receiving the Carklin Award for Artistic Excellence. She



currently lectures in flute at UCT, performs throughout South Africa as a solo flautist, and is a practitioner and researcher in musicians' occupational health.

With her thesis, ***TERTIARY MUSIC STUDENTS' EXPERIENCES OF AN OCCUPATIONAL HEALTH COURSE INCORPORATING THE BODY MAPPING APPROACH***, the candidate makes a contribution to the field of musicians' occupational health. She provides qualitative data on the content, implementation, and assessment of occupational health courses in tertiary Music education. The findings illustrate the beneficial impacts of comprehensive musicians' occupational health education, emphasising the reciprocal interactions of musicians' biopsychosocial and artistic requirements, and the value of body mapping as a somatic education component. The data substantiate the need for musicians' health education to be embedded in tertiary musicians' training, and the advantages of interdisciplinary collaboration. The study raises awareness of the musicians' health field in South Africa and the critical need to equip the next generation of music teachers and performers with improved occupational health literacy.

**Promoter:** Dr AMF de Villiers

**Co-Promoter:** Prof JA Palac

## DOCTOR OF PHILOSOPHY IN MUSIC

**STRYDOM, Danrè**

Danrè Strydom has established herself as one of South Africa's premier solo, chamber, and orchestral musicians through her global concert experience. She studied clarinet at the University of the Free State, Indiana University, and the Ghent Royal Conservatory. She has won numerous awards, including the ATKV cultural diversity award and the First National Bank Prize of excellence. After playing for the award-winning Brussels Philharmonic, she accepted a position at the UFS. Danrè is the African chair for the International Clarinet Association and has been selected as a Buffet Crampon Artist. She is currently principal clarinettist of the Free State Symphony Orchestra.

In her thesis, ***RECLAIMING CLARINET REPERTOIRE: THE RECONSTRUCTION AND PERFORMANCE OF A SELECTION OF REDISCOVERED CLARINET CONCERTOS COMPOSED DURING THE CLASSICAL ERA***, the candidate prepared new editions of four little-known classical clarinet concertos. By arranging the music for clarinet and string quartet (rather than clarinet and orchestra), she has made the concertos available for performance in a wide range of performance settings (including South Africa) where performance of the original versions may have been prohibited by a lack of resources. Her preparation of the editions was both supported and demonstrated by her successful performances of the concertos as part of the requirements for the PhD (Music), where an integration of creative work and research constituted the original contribution to the discipline.

**Promoter:** Dr MJ Thom Wium

**Co-Promoters:** Dr AR Rice and Prof E Hoeprich





## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN AFRICA STUDIES

**NKHOMA**, Bryson Gwiyani

Bryson Nkhoma was born on 1 June 1972 in Cheza Village of T/A Kwataine in Ntcheu district, Malawi. He received his secondary education in Lilongwe, where he matriculated at William Murray Secondary School in 1991. He obtained a BEd (Humanities) and MA in African Social History at the University of Malawi in 1996 and 2005 respectively. He started his career as a History teacher at Luchenza Secondary School in 1995. In 2000, he was appointed as lecturer in the Department of History at Mzuzu University. He has published in *Development Southern Africa* and the *Malawi Journal of Social Sciences*. Upon returning, he will be promoted to Senior Lecturer.

In his thesis, **PEASANTS, ECOLOGY AND THE STATE: FOOD SECURITY IN THE LAKE CHILWA BASIN OF SOUTHERN MALAWI, 1891-1994**, the candidate argued that the state was not all-powerful or monolithic in executing its food-security interventions. Although capitalism disrupted African economic activities, its impact on peasants' food security varied regarding place, time, gender, and class. Relations between the state and the peasants did not occur in isolation from global changes. Nor were the relations simply 'acted upon' by international forces. While ecological changes and periodic droughts were critical for peasants' food security, their impacts in the Chilwa basin were accentuated by the political, economic, and social circumstances of the time. Dr Nkhoma's thesis makes a contribution to debates on state interventions, food security, ecological change, and sustainable development. His thesis demonstrates the limits of state power as the main driver for change, and science as a blueprint for rural development.

**Promoter:** Dr C Masakure

**Co-Promoters:** Dr A Daimon and Dr C Muller

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN HISTORY

**DU BRUYN**, Hendrik Jeremias

Derek du Bruyn was born in Winburg on 22 January 1969. He received his secondary education in Brandfort, where he matriculated at the State President CR Swart High School in 1986. He obtained his BA degree in 1990, BA (Hons.) in 1991, and MA (History) degree with distinction in 1995. He started his career as an archivist at the Free State Provincial Archives in Bloemfontein in 1993. In 2007, he was appointed as a historian at the National Museum in Bloemfontein, where he currently works. He specialises in community, cultural, and oral history.

With his thesis, **GARDENS, GARDENING CULTURE AND THE DEVELOPMENT OF A SEMI-VERNACULAR GARDEN STYLE IN BATHO, MANGAUNG, 1918-1939: A HISTORICAL PERSPECTIVE**, the candidate makes an exceptional and original contribution to the knowledge of South African, Free State, and garden history in the 20<sup>th</sup> century. Due to intercultural influencing, the garden style and gardening culture of South Africa's black people and other indigenous groups were influenced by white gardeners' preference for formality, symmetry, and topiary. Batho became a 'garden location', with gardens characterised by the presence of topiary. An ancient European garden art was indigenised and turned into a phenomenon described as 'township topiary'. This study shows that Batho's garden history does not stand in isolation to trends and changes



in garden history on all levels. The interdisciplinary nature of the thesis makes remarkable contributions to a broad spectrum of subfields. The examiners described this thesis as a "ground-breaking study that makes an exemplary contribution in humanising the inhabitants of Batho in a manner that few studies on the history of black people in the Free State have been able to do".

**Promoter:** Dr MM Oelofse

**Co-Promoter:** Prof M Burden

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN PHILOSOPHY

**FRUCHTER,** Temima Geula

Temima Fruchter was born in New York in 1982. She received her secondary education at Manhattan High School for Girls, after which she received a BA in Liberal Arts from Thomas Edison State University (2002); a Teaching Diploma in Judaic Studies at Michlalah Jerusalem College for Women (2004); an MA in English at Bar-Ilan University (2006); a BAHons in Publishing Studies with distinction at Wits (2007); a BAHons with distinction in Sociolinguistics at UNISA (2011); and a PhD in Philosophy at the University of the Free State (2018). Presently, she lectures in Jewish philosophy and ethics, and works as a Hebrew-English translator and editor.

With her thesis, ***LINGUISTIC RELATIVELY AND UNIVERSALISM: A JUDEO-PHILOSOPHICAL RE-EVALUATION OF THE SAPIR-WHORF HYPOTHESIS***, the candidate presents a critical analysis of Whorf's linguistic relativity and Chomsky's innateness, and the polarisation between them, demonstrating that the dichotomisation between the two should not be viewed in isolation from the academic and socio-political context. It discusses the philosophical bedding of the two, using as a framework Taylor's (2016) view of language as designative (influenced by Hobbes, Locke, and Condillac), or as constitutive (influenced by Hamann, Herder, and Humboldt), as well as other philosophers such as Benjamin, Scholem, Rosenzweig, and Derrida. Using a Judaic conception of language and a Judeo-philosophical framework, it is demonstrated that the comeback linguistic relativity has made of late, is not arbitrary. It furthermore demonstrates linguistic relativity's universal implications and its relevance to our globalised world of technologically enhanced multi-platform, multicultural communication, post-truth politics, and the ever-increasing media-induced cacophony of our divided digital democracy.

**Promoter:** Prof P Duvenage

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN PHILOSOPHY

**LÖTTER,** Casper

Casper Lötter was born in Cradock in the Eastern Cape. He received his secondary education in Fort Beaufort in the Eastern Cape, where he matriculated. He obtained the degrees BProc in 1992, BAHons (Philosophy) in 2010, MA (Philosophy Research) with distinction (NMU) in 2014, and the PhD in Philosophy in 2018 at the University of the Free State. He started his academic career as research and teaching assistant in Port Elizabeth in 2014. At present, he is an independent researcher with research interests in recidivism and desistance, the management of cross-cultural learning, and the advancement of the caring society.



With his study, ***THE INTEGRATION OF EX-OFFENDERS IN SOUTH AFRICA BASED ON THE CONTEMPORARY CHINESE MODEL: AN INTERDISCIPLINARY STUDY***, the candidate's research focused on the process of stigmatisation, marginalisation, and discrimination that ex-offenders are subjected to after completion of their sentences. With reference to scholars such as Foucault and Angela Davis, the research problematises the idea that stigma should necessarily follow ex-offenders for the rest of their lives and sets out to discover what one can learn from the Chinese on integration. Using Braithwaite's distinction between 'integrative shaming' and 'stigmatising shaming' cultures, it was found that South Africa, a stigmatising shaming culture, has rates of recidivism of between 85% and 94% while the Peoples' Republic of China, an integrative shaming culture, only has 6%-8%. The question was therefore how to integrate returning ex-offenders despite South Africa's stigmatising shaming culture, based on the contemporary Chinese model, and represents an original contribution to the discourse.

**Promoter:** Prof B Olivier

**Co-Promoter:** Prof P Duvenage



DEAN |

PROF PD VERMEULEN

## AGRICULTURAL SCIENCES

### DOCTORAL DEGREES

#### DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN AGRICULTURAL ECONOMICS

LOMBARD, Willem Abraham

Willem Abraham Lombard was born on 21 August 1989 and is originally from Harrismith. He received his secondary education from Harrismith High School, where he matriculated in 2007. He obtained the degrees BScAgric (Animal Science and Agricultural Economics) in 2011, BScAgricHons (Agricultural Economics) with distinction in 2012, and MScAgric (Agricultural Economics) with distinction in 2015. He started his professional career at the University of the Free State in 2014 as a junior lecturer in the Department of Agricultural Economics (UFS) and is currently employed as a lecturer in the same department.

With his thesis, ***APPLYING EYE-TRACKING TECHNOLOGY TO INVESTIGATE RED MEAT CONSUMER'S PURCHASING PREFERENCES: A CASE STUDY OF THE MANGAUNG MUNICIPALITY***, the candidate makes a valuable contribution to the agricultural industry and more specifically, the red meat sector. With this contribution, he determined red meat consumers' preferences by making use of eye-tracking technology in an attempt to enhance the accuracy of research over that of traditional research. His investigation indicates how eye-tracking technology improves the determination and subsequent marketing of consumers' red meat preferences. A contribution is made to future national red meat research, provides valuable industry guidelines on which to build, and ultimately improves value for red meat consumers.

**Promoter:** Dr JH van Zyl

**Co-Promoter:** Prof TR Beelders



## NATURAL SCIENCES

### DOCTORAL DEGREES

#### DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN ANIMAL NUTRITION

**EINKAMERER**, Ockert Bernard

Ockert Bernard Einkamerer was born in Kuruman, Northern Cape, on 23 February 1982. He received his secondary education in Kuruman, where he matriculated at Kalahari High School in 2000. He obtained the degrees Baccalaureus Scientiae Agriculturae (2005), Baccalaureus Scientiae Agriculturae (Hons) (2005), and Magister Scientiae Agriculturae (2008), all with distinction, as well as a PhD in Animal Nutrition in 2018 at the University of the Free State. He started his career as junior lecturer in the Department of Animal, Wildlife and Grassland Sciences at the University of the Free State, where he is currently a lecturer.

With his thesis, ***THE EFFECT OF NDF, ADF AND NPN CONTENT IN FINISHING DIETS ON THE PERFORMANCE AND MEAT QUALITY OF LAMBS***, the candidate demonstrated that low-fibre diets that contain highly digestible fibre sources (NDF and ADF) have a positive effect on lamb performance and carcass quality. The candidate suggests that a degradable true protein source in combination with an NPN source is important for production purposes. A small ruminant diet that includes a lipid source high in omega 3 fatty acids would be beneficial, because the unsaturated lipids in their body fat increases. Thus, the nutritional value for consumers is enhanced. The candidate's independent way of thinking and ability to link the entire value chain from 'conception to consumption' is highly commendable. This research makes a valuable contribution to the small ruminant industry. Several peer-reviewed scientific articles from this research are currently under preparation.

**Promoters:** Prof A Hugo and Dr V Ferreira

#### DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN BOTANY

**ADENDORFF**, Joan

Joan Adendorff was born in Pretoria on 19 February 1982. She received her secondary education in Bloemfontein, where she matriculated at the Sand du Plessis High School in 1999. She obtained the degree Baccalaureus Scientiae in 2007, Baccalaureus Scientiae Hons in 2008, and the degree Magister Scientiae (Entomology) in 2010 at the University of the Free State. She has just started her career as research consultant at Nulandis, a division of AECL in Johannesburg.

With her thesis, ***ALEXIN™-MEDIATED DEFENCE RESPONSES IN WHEAT DURING RUSSIAN WHEAT APHID (DIURAPHIS NOXIA) INFESTATIONS***, the candidate makes a contribution towards the concept of priming during induced host plant-resistance responses. She describes how a commercial plant activator, Alexin™, mediates induction of specific redox reactions, hormonal levels, and expression of genes as a mechanism to protect wheat plants during aphid infestations. The enhanced defence responses in susceptible wheat varieties and the unique downregulation in resistant varieties serve as an indication of the value this type of intervention holds for the attempt to find a solution to alternative pest management strategies in crop production.





**Promoter:** Dr L Mohase

**Co-Promoter:** Dr A Jankielsohn

**CASTELYN, Howard Dean**

Howard Dean Castelyn was born in Nelspruit on 24 September 1987. He received his secondary education in Welkom, where he matriculated at Goudveld High School in 2005. He obtained the degree BSc (Biochemistry) with distinction in 2008, BScHons (Plant Molecular Biology) with distinction in 2009, and the MSc degree (Plant Molecular Biology) from the UFS in 2012.

With his thesis, ***MOLECULAR AND CELLULAR ANALYSIS OF ADULT PLANT RESISTANCE IN WHEAT TO PUCCINIA GRAMINIS F. SP. TRITICI***, the candidate contributes to our understanding of the defence mechanism in wheat carrying adult plant resistance genes against stem rust infection. Using a transcriptomic approach, he identified two waves of differentially expressed wheat genes at distinctive time points that contributed to the resistance response. The transcriptomic approach allowed early differentiation between resistant and susceptible wheat lines, whereas histological and phenotypic analysis only succeeded at five- and 14-days post-inoculation, respectively. Adult plant resistance in commercial wheat varieties is considered durable in the context of a highly variable pathogen population.

**Promoter:** Prof ZA Pretorius

**Co-Promoters:** Prof B Visser and Dr LA Boyd

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN CHEMISTRY

**DU PLESSIS, Maretha**

Maretha du Plessis (née Serdyn), was born in Wellington on 1 September 1988. She received her secondary education in Bloemfontein, where she matriculated at the Jim Fouché High School in 2006. She obtained the degree BSc in 2009, followed by Hons in 2010, and the MSc degree in Organic Chemistry in 2013, all with distinction, at the University of the Free State. She started her career as teaching assistant at the University of the Free State in Bloemfontein in 2011 and is since 2016 a Chemistry facilitator in the Department of Chemistry at the University of the Free State.

With her thesis, ***PALLADIUM CATALYZED HYDROESTERIFICATION AND AMINOCARBONYLATION OF SUBSTITUTED ALKENES AND ALKYNES***, the candidate makes an important contribution to knowledge regarding the electronic parameters governing regioselectivity during hydro-esterification reactions. She was also able to show that electron-donating groups have a retarding effect on the reaction rate, while electron-withdrawing substituents accelerate the reaction. By replacing the alcohol in the process with an amine, the candidate discovered the palladium catalysed aminocarbonylation reaction to be a viable process for preparing aromatic amides. The quality of her contribution is emphasised by the fact that some of the results from her investigation have already been published in a leading international scientific journal, while the rest of her work will definitely lead to at least three more papers in similar journals. The candidate's work will also lead to isoflavonoid compounds becoming more readily available for testing as potential drugs in medicinal applications.

**Promoter:** Prof BCB Bezuidenhoudt

**Co-Promoter:** Dr C Marais



## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN CHEMISTRY

**ELMAKKI**, Mohammed Abdelaziz Elkhidir

Mohammed Elmakki was born in Atbara, Sudan, on 30 October 1976. He received his secondary education in Bahri, where he matriculated at Bahri High School in 1996. He obtained his BSc in Chemistry in 2002 at Omdurman Islamic University, and an MSc in Chemistry at the Sudan University of Science and Technology in 2011. He started his career in 2011 as a lecturer at Omdurman Islamic University, Sudan.

With his thesis, **CRYSTALLOGRAPHIC AND MECHANISTIC STUDY OF IDOMETHANE OXIDATIVE ADDITION TO RH(I) COMPLEXES COMPRISING STERICALLY RESTRAINED BIDENTATE LIGANDS**, the candidate makes a significant contribution to the fundamental understanding of the influence of ligands to enable the manipulation and prediction of catalytic reactions. He synthesised novel rhodium complexes with selected mono and bidentate ligands and investigated the factors which govern their stability, reactivity, coordination geometry, and bonding characteristics. By utilising X-ray crystallography as well as various spectroscopic methods, he successfully characterised and explored structure/reactivity relationships of these platinum group complexes. To date, three papers from this thesis have been published in international journals, with three more in preparation. The candidate presented his results at five international conferences.

**Promoter:** Dr JA Venter

**Co-Promoters:** Prof A Roodt and Dr GJS Venter

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN DISASTER MANAGEMENT

**HLALELE**, Bernard Moeketsi

Moeketsi Bernard Hlalele, born on 23 May 1979, received his primary education at Lifateng Primary School and matriculated at Mount Tabor High School in Lesotho. In 2003, he obtained a BScEd in Mathematics and Physics at the National University of Lesotho. He started his career at Mount Tabor High School as Mathematics and Science teacher. In 2008, he obtained a BTech in Project Management at the Central University of Technology. In 2014, he graduated with a BEdHons specialising in Mathematics. In 2015, he obtained a master's degree in disaster management. He is currently a lecturer and a services SETA project manager at the Central University of Technology.

With his thesis, **SPATIO-TEMPORAL ANALYSIS OF DRY SPELLS VARIABILITY IN LESOTHO**, the candidate makes a unique contribution to science where the subsequent dry spells in Lesotho could be predicted through sunspot numbers (SSN), particularly on high temporal scales associated with hydrological, streamflow, and groundwater drought events in the highland areas of Lesotho.

The study also makes a significant practical contribution in providing a full characterisation of dry spells in the study area through the determination of their possible driving forces to serve as an early warning system. It provides a solid foundation for effective and proactive decision-making regarding the protection of the environment, economy, and human lives in Lesotho. The study concluded that the next extreme groundwater and streamflow drought events will be in the year 2024/2025.



**Promoter:** Prof DM Sakulski

**Co-Promoter:** Prof AJ Jordaan

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN DISASTER MANAGEMENT

**SHWABABA, Siviwe Zukile**

Siviwe Zukile Shwababa was born in King William's Town on 15 April 1978, where he obtained his primary and secondary education. After matric, he successfully completed his undergraduate qualifications in Environmental Studies and subsequently enrolled at the University of the Free State for a master's degree in Environmental Management, which he completed in 2004. His career as an environmentalist commenced in 2001 when he was employed by the then Queenstown Municipality in the Eastern Cape. In 2010, he was appointed by the Department of Rural Development and Land Reform in the Eastern Cape as a Chief Environmental Specialist, a position he still holds.

With his thesis, ***SUSTAINABLE LAND REFORM MODEL ASSESSING THE EXTENT AND SEVERITY OF SHOCKS AND STRESSORS AMONG LAND REFORM BENEFICIARIES: A CASE OF RAINFED LAND REFORM BENEFICIARIES IN THE EASTERN CAPE PROVINCE OF SOUTH AFRICA***, the candidate makes a contribution through the assessment of shocks and stressors among land-reform beneficiaries farming on land-reform farms and communal land. With this contribution, he attempts to promote the adoption of risk-reducing, preventative measures and strategies which sequentially help to mitigate the impacts of future shocks and stressors within the land-reform fraternity, leading to sustainable livelihoods and improved agricultural production. The research results expose various drivers and indicators that increase the vulnerability of land-reform beneficiaries to shocks and stressors and concludes by proposing a comprehensive model for shock and stressor mitigation, driven by the proactive and reactive approach. The model is the first of its kind within the land-reform programme and is set to serve as a sustained proactive approach which can assist political, policy, and operational decision-makers to direct much-needed resources towards the enhancement of disaster-risk reduction.

**Promoter:** Prof AJ Jordaan

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN GEOGRAPHY

**MUTANA, Sarudzai**

Sarudzai Mutana was born on 2 April 1978 in Masvingo, Zimbabwe. She completed her secondary education at Chibi High School in 1996 and obtained a BSc Degree in 2002 and in 2007, both in Tourism and Hospitality Management from the University of Zimbabwe. Her academic career started at Chinhoyi University of Technology in 2004. In 2007 she was appointed at the Zimbabwe's Midlands State University in 2007 where she later became the head of the Department of Tourism and Hospitality. She worked briefly at the University of Zimbabwe before taking up the position of Campus Director at the Catholic University of Zimbabwe's Bulawayo Campus in 2014.

With her thesis, ***SUSTAINABILITY OF MONTANE-ROUTE TOURISM: THE CASE OF THE MALUTI ROUTE IN THE DRAKENSBERG MOUNTAINS OF SOUTH AFRICA***, the candidate contributes to an upcoming discourse of mountain route



tourism sustainability. Travel through and to mountain areas has recently increased considerably with route tourism now playing an important role in poverty reduction in mountain communities. However, tourism may result in negative impacts on the fragile physical environment and unique cultures of mountain communities. Focusing on the Maluti Route in the Drakensberg Mountains, the study established that sustainable tourism development along mountain routes requires active local community participation through the creation of community interaction fields among business, community and government agencies. With this contribution, the candidate provides a building block for tourism planning and monitoring and suggests possible methods of achieving sustainable tourism along mountain routes.

**Promoter:** Prof G Mukwada

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN MATHEMATICAL STATISTICS

**VAN DER MERWE, Sean**

Sean van der Merwe was born in Bloemfontein on 18 February 1982. He received his education in Bloemfontein, matriculating in 2000. He obtained the degrees BCom Actuarial Science in 2003, BComHons Actuarial Science in 2004, and MCom Mathematical Statistics in 2005, all with distinction at the UFS. He has been a lecturer in the Department of Mathematical Statistics and Actuarial Science at the UFS since 2006.

The candidate's thesis, ***TOPICS IN THE ANALYSIS OF COMPOSITION DATA***, introduces novel approaches to working with any data that naturally occurs as sets of proportions. The new methods simplify interpretation of results while simultaneously introducing greater flexibility, mainly through the use of the Bayesian framework. Focus is on the use of the Dirichlet distribution in the context of classification, discrimination, and regression of composition vectors. The general methods introduced can be used across many fields of science.

**Promoter:** Prof DJ de Waal

**Co-Promoter:** Dr MJ von Maltitz

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN PLANT PATHOLOGY

**VERMEULEN, Marcelle**

Marcelle Vermeulen was born in Evander on 25 December 1981. She received her secondary education in Piet Retief, the degrees BSc Plant Pathology (2005), BScHons in Microbiology (2006), and MSc (Microbiology) with distinction in 2012 at the University of Pretoria, and a PhD in Plant Pathology in 2018 at the University of the Free State. She started her career as postdoctoral fellow in Bloemfontein in the Department of Microbial, Biochemical and Food Biotechnology, University of the Free State, in 2018.

With her thesis, ***THE MICROBIOME OF CULTIVATED AMARANTHUS CRUENTUS IN SOUTH AFRICA***, the candidate makes a contribution to the field of Plant Pathology. With this contribution, she attempts to establish for the first time in South Africa how fungal pathogens and microbes in the root rhizosphere of the novel crop *Amaranthus cruentus* (amaranth) impact plant health. The results of this investigation serve as an indication of the value this type of intervention holds for the attempt to find a solution to improve plant health and yield from this crop, and to control disease problems during plant production. This is due to the varied approach of not only looking at fungal pathogens and their interactions with possible insect vectors, but also how microbes influence root health.



**Promoter:** Dr M Gryzenhout

**Co-Promoter:** Prof WJ Swart

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN SOIL SCIENCE

**HATTINGH, Astrid Magdalena**

Astrid Hattingh was born in Vereeniging on 9 December 1959. In 1974, she completed her secondary education at the Drie Riviere High School. She obtained the degrees BSc in 1977, BScHons in 1978, and MSc in 1983 at Potchefstroom University, all in Soil Science. In 1979, she started as a researcher in the Department of Agriculture and progressed through the ranks to assistant director before resigning in 2010. During this period, she also lectured Soil Science at Potchefstroom Agricultural College and North-West University on a part-time basis. She is currently a soil science consultant.

With her thesis, ***SPATIAL VARIABILITY OF SOIL PROPERTIES IN TWO MAIZE PRODUCING AREAS SURVEYED FOR PRECISION FARMING IN NORTHWEST PROVINCE, SOUTH AFRICA***, the candidate contributes significantly towards a better understanding of the occurrence and distribution of soils in landscapes. The spatial variability of soil properties is dependent on factors such as geology, topography, underlying material, and historic field treatment under specific climatic conditions. Due to the high spatial variation of soil's physical and chemical properties, it is essential for farmers to implement precision-farming practices in order to optimise soil use under dryland crop production, especially in semi-arid regions. Farmers should understand the reasons for the spatial variation to make informed decisions regarding management practices.

**Promoter:** Prof CC du Preez

**Co-Promoter:** Prof CW van Huyssteen

## DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN SOIL SCIENCE

**TFWALA, Cinisani Mfan'Fikile**

Cinisani Mfan'fikile Tfwala was born in Manzini, Swaziland, on 20 August 1979. He received his secondary education in Manzini, where he matriculated at the Manzini Nazarene High School in 1998. He obtained the degree BSc in Agriculture in 2004 (University of Swaziland), Hons (Irrigation Science) in 2009, and the degree MSc (Irrigation Science) in 2010 at the University of the Free State. He started his career as teacher in Mankayane, Swaziland, in 2004. In 2006, he was appointed as a research technician in the Department of Agricultural Research and Specialist Services, Ministry of Agriculture, Swaziland, and at present he is a senior researcher in the same department.

With his thesis, ***CONTRIBUTION OF SOIL WATER AND GROUNDWATER TOWARDS TRANSPIRATION OF TREE SPECIES IN THE GHAAP PLATEAU***, the candidate makes a contribution to the understanding of water sources for tree transpiration. With this contribution, he ascertains the contributions of different water sources and the implications of altering the existing hydrological status, as in the case of groundwater table drawdown in open-cast mining. The results of this investigation are essential in implementing plant and environmental protection measures.

**Promoter:** Prof LD van Rensburg

**Co-Promoter:** Dr PC Zietsman





DEAN |

**PROF SD SNYMAN**

## DOCTORAL DEGREES

### DOCTOR OF THEOLOGY WITH SPECIALISATION IN RELIGION STUDIES

**JENTILE, Thembelani Elvis**

Thembelani Elvis Jentile was born in Barkly East, Eastern Cape, on 19 July 1979. He received his secondary education in Jouberton, Klerksdorp, where he matriculated at the Are-Fadimeheng Secondary School in 1998. He obtained his Diploma in Ministry with distinction in 2003 (from the Baptist Convention College), Diploma in Theology (from the Theological Education by Extension-TEE) in 2004, Hons in New Testament in 2009 (from UNISA), Hons in Christian Leadership with distinction in 2015 (from UNISA), and Master of Theology in 2016 (from the University of the Free State).

With his thesis, **BANTU STEPHEN BIKO'S SPIRITUALITY: A THEOLOGY FROM BELOW**, the candidate used lived religion theory to dispel the notation that spirituality is only contained in the boundaries of religious formations. The candidate used this theory to contend that religious leaders could learn a lot from Biko's life and philosophy, which was/is embedded in social activism and contemplative spirituality. The thesis contributes to knowledge by challenging the orthodox and traditional meanings of 'spiritual knowledge' and 'spiritual identity', what is 'true spirituality' and what is 'secular spirituality' as well as 'personal sin' and 'structural sin'. In more specific terms, the study has brought to the attention of scholars the profoundness of Biko's theological and spiritual insights and the contribution of his thinking to the development of black theology in South Africa. With this contribution, the candidate identifies factors such as unnecessary division of priests and laypeople.

**Promoter:** Prof L Ntombana

**Co-Promoter:** Dr KT Resane

### DOCTOR OF PHILOSOPHY WITH SPECIALISATION IN SYSTEMATIC THEOLOGY

**DEETLEFS, Johannes Petrus**

Johan Deetlefs was born in Kimberley on 15 January 1955. He received his secondary education in Kimberley and Pretoria and matriculated at the South African Police College in 1972. He obtained the degree Bachelor of Theology in 2003 at the University of Zululand, BAHons (Theology) in 2008, and MA (Theology) in 2015 at the University of the Free State. At present, he is retired and serves as a part-time lecturer in Systematic Theology at the Christian Reformed Theological Seminary in Bronkhorstspuit.

With his thesis, **GOD-IMAGES AND POLITICS: THE CONTRIBUTION OF TRINITARIAN THEOLOGY**, the candidate makes a contribution to understanding the impact of religious symbols on society. Historically, the central symbol of the Divine



influenced the way in which societies structured their social and political environment. In contrast with the individualism of modernity, religiously supported by an image of the one God of strict monotheism, a Trinitarian God-image emphasises the relational nature of both the Divine and reality. Theological developments in the doctrine of God have signalled a new appreciation of the Trinitarian confession. This shift has analogically generated interpretative possibilities for understanding human flourishing through relationships of recognition and embrace of the other. The results of this investigation demonstrate the value of constructive theology for the continued relevance of religion in pluralistic and multicultural societies burdened by alienation, as experienced in South Africa and globally.

**Promoter:** Prof R Venter



# The Main Procession graduation gowns – embroidered with rich diversity

**S**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.



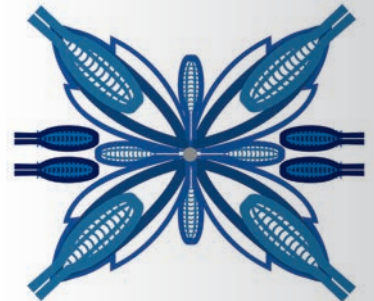
### Yoke pattern for the Chairperson of the Council

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

Warmest congratulations on your graduation and best wishes for your next adventure! We are very proud of you. We hope that you will stay in touch with your Alma Mater and share your future achievements with other Kowsie alumni.

### CELEBRATE EXCELLENCE

Alumni are a real measure of a university's brand and we strive to keep you informed of the crop of exceptional young leaders and pioneers emerging from Kowsies. We do this through our online platforms, social media, publications like BULT and events such as the Chancellor's Distinguished Alumni Awards.

### GROW THE COMMUNITY

We exist not only to keep you, our most valued brand ambassadors, connected to your alma mater but to help you stay connected to each other. We encourage engagement and networking opportunities through events, informal visits and guest lectures. You can connect with alumni globally and reconnect with former class mates through the Alumni Office.

### ONLY A KOWSIE KNOWS THE FEELING

The extraordinary achievements of Kowsies, both current and past, have placed the University of the Free State on the world stage.

Read about some of those achievements at: [www.ufs.ac.za/alumni/noteworthy-alumni](http://www.ufs.ac.za/alumni/noteworthy-alumni). These alumni have gone on to inspire the next generation of Kowsies and their communities.

### GIVE BACK

The UFS values value your financial contributions, your time and your skills. Strengthen your bond with your Alma Mater by becoming involved in projects, events and initiatives aimed at creating a fulfilling student and alumni experience for fellow Kowsies.

Give to a variety of impactful projects via

- the Kowsie ABSA affinity credit card
- a MySchool card
- Mentorship opportunities
- Organisational involvement
- Our donations web page [www.ufs.ac.za/giving](http://www.ufs.ac.za/giving)

### UPDATE YOUR DETAILS

- email: [alumni@ufs.ac.za](mailto:alumni@ufs.ac.za) – Include your date of birth, cell phone number and full names or
- online at [www.ufs.ac.za/alumni](http://www.ufs.ac.za/alumni)

T: +27 51 401 3632 | [alumni@ufs.ac.za](mailto:alumni@ufs.ac.za) | [www.ufs.ac.za](http://www.ufs.ac.za)

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Inspireer uitnemendheid. Verander lewens.*



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