

UNIVERSITEIT
iYUNIVESITHI
STELLENBOSCH
UNIVERSITY

100

1918 · 2018

Graduation Ceremonies

4 April - 7 April

Gradeplegtighede

4 April - 7 April

2022

Ons Visie 2040

Die Universiteit Stellenbosch sal Afrika se voorste navorsingsintensiewe universiteit wees wat wêreldwyd as uitnemend, inklusief en innoverend erken word en waar ons kennis tot diens van die samelewing bevorder.

Ons Missie

Die Universiteit Stellenbosch is 'n navorsingsintensiewe universiteit wat uitmuntende studente lok, talentvolle personeel aanstel en 'n wêreldklasomgewing bied; 'n plek wat met die wêreld verbind is en gemeenskappe plaaslik, op die vasteland en in die res van die wêreld verryk en transformeer.



Our Vision 2040

Stellenbosch University will be Africa's leading research-intensive university, globally recognised as excellent, inclusive and innovative, where we advance knowledge in service of society.

Our Mission

Stellenbosch University is a research-intensive university where we attract outstanding students, employ talented staff and provide a world-class environment; a place connected to the world, while enriching and transforming local, continental and global communities.



Umbonoweth ka2040

IYunivesithi yaseStellenbosch iya kuba yiyunivesithi egxininise kuphando nekhokeleyo eAfrika, neyamkelwa kwihlabathi lonke njengegqwesileyo, equkayo neyenza inguqulelo, nalapho siqhubela phambili ulwazi sikhonza uluntu.

Ubizo Lwethu

IYunivesithi yaseStellenbosch yiyunivesithi egxininise kuphando nalapho sitsala abafundi abagqwesileyo, siqesha abasebenzi abanesiphiwo kwaye sibonelela nemeko ekwinqanaba lehlabathi; indawo eqhagamshelene nehlabathi, ngelixa ichumisa kwaye iguqula uluntu lwengingqi, lwelizwekazi nolwehlabathi.



Oudregter | Retired Justice Edwin Cameron

Kanselier | Chancellor

Beste lid van die Universiteit Stellenbosch-gemeenskap

Dit is weer eens vir my 'n eer en 'n voorreg om hierdie boodskap by ons gradeplegtighede te lewer.

Die afgelope jaar het die deursettingsvermoë, geduld en vindingrykheid van al ons studente en personeel beproef. Ek huldig jou vir jou vasberadenheid ten spyte van die Covid-19-pandemie en die ontsaglike uitdagings daaraan verbonde.

Dat jy my boodskap hier lees, beteken dat jy geseëvier het en dat jy gereed is om met 'n nuwe fase van jou lewe te begin. Al is die toekoms vir elkeen van ons onseker, het jy in 'n tyd van wêreldwye stres glansryke sukses behaal. Dit spreek boekdele oor jou toekoms!

Ek betuig my innige medelye met elkeen wat 'n geliefde aan die koronavirussiekte afgestaan het, en aan diegene wie se lewens op ander maniere deur die pandemie geraak is. Daar was donker dae, maar entstowwe en groter wetenskaplike en mediese begrip van Covid het ook hoop gebring.

Ons is vandeeweek besonder trots op al die grade, diplomas en sertifikate wat ons tydens hierdie plegtighede toeken. Dit getuig van die Universiteit Stellenbosch se belangrike bydrae tot Suid-Afrika, die res van ons vasteland en die wêreld in geheel. En ek sien daarna uit om te kyk hoe julle, ons graduandi, die samelewing sal vorm.

Studente, dosente, promotors, steundienstpersoneel en die bestuur – julle het almal 'n noodsaaklike rol vervul om seker te maak dat ons instellings steeds floreer.

En sonder die gewillige ondersteuning van vriende en familie, sou talle studente nie vandag hier gewees het om hul prestasies te vier nie – aan hulle dus ook 'n hartlike dankie.

Ons wil ook ons waardering uitspreek teenoor ons skenkers en borge, wat ons graduandi gehelp het om tot die einde toegewyd en doelgerig te werk, om vandag se kwalifikasies te kon behaal.

Aan elke graduandus:

Mag die vreugde en trots waarmee ons vandag jou prestasies vier, mettertyd tot iets selfs kosbaarder ontwikkel – 'n dieper verantwoordelikheds- en pligsbesef. Jou nuwe status bied jou die geleentheid om die kennis, vaardighede en netwerke wat jy deur jou studies op Stellenbosch opgebou het, te gebruik om ons land, die vasteland en die wêreld 'n beter plek te maak. Meer as ooit tevore moet ons nou die kans aangryp om tot die samelewing by te dra.

Alle moontlike sukses met die volgende fase van jou lewensreis word jou toegewens.

Oudregter Edwin Cameron
Kanselier

Dear member of the Stellenbosch University community

Once again, it is an honour and a privilege for me to bring this message to our graduation ceremonies.

The past year has taxed the endurance, patience and resourcefulness of all our students and staff. I salute you for your determination in the face of the Covid-19 pandemic and its daunting challenges.

The fact that you are reading my message means that you have triumphed, and that you are ready to embark on a new phase of your life. Though for each of us the future holds uncertainties, you have achieved signal success, during a global period of stress. This says great things about your future!

I extend my respectful condolences to each person who has lost a loved one to coronavirus disease, and to those whose lives the pandemic has impaired in other ways. There have been dark days, but vaccines and greater scientific and medical understanding of Covid have also brought hope.

This week, we are immensely proud of all the degrees, diplomas and certificates we confer at these ceremonies. They attest to Stellenbosch University's key contribution to South Africa, the rest of our continent and to the world at large. And I am excited to see how you, our graduates, will shape society.

Students, lecturers, supervisors, support services staff and management – you have all played a critical part in ensuring that our institution has continued to thrive.

And without the support willingly given by friends and family, many students would not be here today, celebrating their achievements – so, to them, a heartfelt thank you.

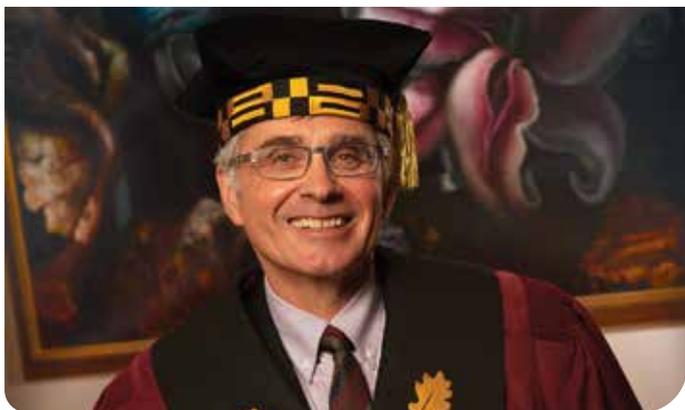
A further word of appreciation to the donors and sponsors who assisted our graduates to keep working with dedication and purpose, until the very end, to obtain today's qualifications.

To each and every graduate:

May the pride and joy with which we are celebrating your achievement today develop over time into something even more valuable – a richer sense of duty and responsibility. Your new status means you can use the knowledge, skills and networks from your studies at Stellenbosch to make our country, continent and the world better. More than ever, we must now embrace the chance to contribute to society.

I wish you every success for the next phase of your life's journey.

Retired Justice Edwin Cameron
Chancellor



Prof Wim de Villiers

Rektor en Visekanselier | Rector and Vice-Chancellor

Beste Matie

Jy gradueer vandeeweek – baie geluk!

Neem 'n oomblik om dit te laat insink. Jy ontvang 'n kwalifikasie van die Universiteit Stellenbosch (US), een van die voorste instellings vir hoër onderwys op ons vasteland, en inderdaad in die wêreld. Dit is 'n merkwaardige prestasie wat wêreldwyd vir jou deure sal oopmaak en jou in jou loopbaan sal help wanneer jy nuwe horisonne verken. Dis iets om op trots te wees!

As 2020 'n naeloop en 'n geskarrel was, het 2021 gewys ons hardloop eintlik 'n marathon. Die tweede jaar van COVID-19 was net so uitdagend soos die eerste, en die derde vlaag koronavirusinfeksies het verdere onsekerheid en swaarkry veroorsaak. Die verlies van geliefdes het ons almal geraak.

Maar ons het ook uitdagings in geleenthede omskep en nuwe, innoverende werkswyses gevind.

In 2021 en die eerste deel van 2022 het ons die bekenstelling van opwindende, nuwe projekte aan die US beleef, soos die Skool vir Klimaatstudie. En danksy die ontwikkelinge by die Sentrum vir Epidemiese-reaksie en -innovasie (SERI) word baanbrekersnavorsing oor dringende kwessies gelewer.

Ons navorsingsuitsette en die impak van daardie navorsing is 'n bewys dat ons besig is om ons visie – om ons kennis tot diens van die samelewing te bevorder – suksesvol te laat realiseer.

Ondanks die pandemie kon ons ook in 2021 studente na ons kampusse terugbring en 'n stelsel van hibridiese leer volg.

Ek hoop dit het jou studente-ervaring verbeter. Universiteitsopleiding gaan immers oor méér as wat jy in die klas leer. Elke interaksie wat jy die afgelope paar jaar gehad het – akademies of sosiaal – sal jou toekoms help vorm.

Omdat jy 'n transformerende studente-ervaring gehad het, is jy nou toegerus om in 'n diverse wêreld die leiding te neem en uit te blink. Ek weet die lesse wat jy hier geleer het, sal jou goed te pas kom, en ek hoop jy dra die US se waardes – uitnemendheid, deernis, billikheid, respek en verantwoordbaarheid – lewenslank saam met jou.

Met die US se navorsers wat aanhou opgang maak, en met meer studieaansoeke en inskrywings vir 2022 as wat ons verwag het, lyk die toekoms uiters opwindend. Dis 'n toekoms wat ons graag met jou wil deel, so skakel asseblief in by ons alumni-netwerk. Gaan gerus na www.matiesconnect.com, waar jy met jou universiteitsvriende in aanraking kan bly, na werksaanbiedinge kan kyk, en mentors en netwerkgeleenthede kan opspoor – alles op een plek. Want die US sal altyd jou akademiese tuiste wees, en 'n sterk alumni-netwerk is nie net vir ons universiteit voordelig nie, maar sal ook jou toekomstige beroepsontwikkeling tot voordeel strek.

Sterkte met dit wat die toekoms inhou, tot ons weer ontmoet!

Prof Wim de Villiers
Rektor en Visekanselier

Dear Matie

This week you are graduating – congratulations!

Take a moment to let that sink in. You are receiving a qualification from Stellenbosch University (SU), one of the top institutions of higher learning on our continent, and indeed the world. This is a significant achievement that will open doors globally, and assist you in your career as you head out into the world – something to be proud of.

If 2020 was a sprint, 2021 showed us that we were running a marathon. The second year of Covid-19 proved just as challenging as the first, with the third wave of coronavirus infections having created further uncertainty and suffering. The loss of loved ones has affected us all.

But we also turned challenges into opportunities and found new, innovative ways of work.

In 2021 and the first part of 2022 we have seen exciting new projects at our institution, such as the launch of the School for Climate Studies and developments at the Centre for Epidemic Response and Innovation (CERI) that deliver cutting-edge research on pressing issues.

Our research output, as well as the impact of that research, proves that we're succeeding in our vision to advance knowledge in service of society.

Despite the pandemic, we also succeeded in bringing students back to campus at the beginning of 2021 by means of a hybrid learning system.

I hope this improved your student experience. After all, obtaining a university education is about more than classroom learning. Every interaction you've had during the past few years – academic or social – will help shape your future.

Having had a transformative student experience, you are now prepared to lead and excel in a diverse world. I know the lessons you've learnt here will stand you in good stead, and I hope you will continue to live by SU's values – excellence, compassion, equity, respect and accountability.

With research at SU continuing to flourish, and student applications and enrolments for 2022 exceeding all expectations, our future prospects are very exciting. It's a future we'd like you to be a part of, so do stay in touch through our alumni network. Please visit www.matiesconnect.com, where you'll be able to maintain ties with your university friends, view job offers and find mentors and networking opportunities – all in one place. SU will always be your academic home, and a strong alumni network is not only beneficial for our university, but will also enhance your professional development going forward.

Good luck with what the future holds, until we meet again!

Prof Wim de Villiers
Rector and Vice-Chancellor

Kanselier | Chancellor

Retired Justice E Cameron, BAHons, LL.D hc (Stell), LL.B, BCL, MA, DCL hc (Oxford), LL.D hc (King's College, London), LL.D hc (Witw), LL.D hc (St Andrews), LL.D hc (Sussex)

Rektor en Visekanselier | Rector and Vice-Chancellor

Prof WJS de Villiers, MB, ChB, MMed (Int), FCP (SA), DPhil, MHCM

Voorsitter van die Raad | Chairperson of Council

Mr AV Moos, BA, BPhil, MBA

Uitvoerende Bedryfshoof | Chief Operating Officer

Prof SA du Plessis, BComHons, MPhil, PhD

Viserektor (Sosiale Impak, Transformasie en Personeel)

Deputy Vice-Chancellor (Social Impact, Transformation and Personnel)

Prof NN Koopman, BA, MTh, DTh

Viserektor (Leer en Onderrig) | Deputy Vice-Chancellor (Learning and Teaching)

Prof D Ramjugernath, BScEng, PhD, MASSAf, FAAS, FSAAE

Viserektor (Navorsing, Innovasie en Nagraadse Studies)

Deputy Vice-Chancellor (Research, Innovation and Postgraduate Studies)

Prof TE Cloete, MSc, DSc

Viserektor (Strategie, Globale en Korporatiewe Sake)

Deputy Vice-Chancellor (Strategy, Global and Corporate Affairs)

Prof HC Klopper, BCur, MCur, PhD, MBA, FAAN, MASSAf

Registrateur | Registrar

Dr P Retief, MA, DLitt

Dekane | Deans

AgriWetenskappe | AgriSciences

Prof D Brink, BScHons, MScAgric, PhD

Ekonomiese en Bestuurswetenskappe | Economic and Management Sciences

Prof I Woolard, BSc, BAHons, PhD

Geneeskunde en Gesondheidswetenskappe | Medicine and Health Sciences

Prof EM Muller, MBChB, MRCS (Ed), FCS (SA), MMed, FACS, PhD

Ingenieurswese | Engineering

Prof JL van Niekerk, MEng, PhD, EMBA

Krygskunde | Military Science

Prof MS Tshela, MSc, PhD

Lettere en Sosiale Wetenskappe | Arts and Social Sciences

Prof AJ Leysens, MA, DPhil

Natuurwetenskappe | Science

Prof L Warnich, MSc, PhD

Opvoedkunde | Education

Prof MR Madiba, DLitt et Phil

Regsgeleerdheid | Law

Prof N Smit, BLC, LLB, LL.D

Teologie | Theology

Prof RW Nel, BA, BTh, MTh, DTh

Altyd 'n Matie

Geluk en welkom in die Universiteit Stellenbosch se alumni-familie! Jou gradeplegtigheid is 'n belangrike mylpaal, en ook die begin van jou voortgesette verbintenis met jou alma mater. Die Alumnikantoor is jou lewenslange skakel met die Universiteit.

Daar is vele maniere om in kontak te bly.

Tuiskoms-en-Familienaweek

Die Universiteit se Tuiskoms-en-Familienaweek vir alumni vind vanaf Donderdag 8 September tot Saterdag 10 September 2022 op die Stellenboschkampus plaas. Inligting is by www.matiesalumni.com beskikbaar.

Sluit aan by Maties Connect

Ons www.matiesconnect.com-platform sal jou help om jou professionele netwerk uit te brei, 'n werkgeleentheid te vind, jou besigheid te adverteer, vir 'n mentor te soek, alumni te kontak, en op die hoogste van gebeure by jou alma mater te bly.

Wees deel van 'n Alumnihub

Die Universiteit se Ontwikkeling en Alumnibetrekkings-span vestig plaaslike en internasionale alumni-nawe (oftewel 'hubs') en takke om alumni in spesifieke streke met mekaar in verbinding te bring deur gereelde netwerk- en sosiale geleenthede aan te bied – aanlyn en in persoon. Vir meer inligting oor hoe om aan te sluit, as vrywilliger op te tree en wêreldwyd aan 'n hub of tak deel te neem, stuur 'n e-pos aan alumnihubs@sun.ac.za.

Always a Matie

Congratulations and welcome to the Stellenbosch University alumni family! Your graduation is a momentous occasion and marks the beginning of your continued relationship with your alma mater. The Alumni Office is your lifelong connection to the University.

There are many ways to stay connected.

Homecoming and Family Weekend

The University's Homecoming and Family Weekend takes place from Thursday, 8 September to Saturday, 10 September 2022 on the Stellenbosch campus. Information is available on www.matiesalumni.com.

Join Maties Connect

Our www.matiesconnect.com platform will help you increase your professional network, find a job opportunity, advertise your business, search for a mentor, reach out to alumni, and keep up to date on what's happening at your alma mater.

Be part of an Alumni Hub

The University's Development and Alumni Relations team establish alumni hubs and chapters both locally and internationally to connect alumni in specific regions with one another through regular networking and social events - both online and in person. For more information on how to join or to volunteer and participate in a hub or chapter, send an e-mail to alumnihubs@sun.ac.za.

I-Matie ngalo Lonk' ixesha

Sivuyisana nawe kwaye wamkelekile kusapho olungabo babesakufunda kwiYunivesithi yaseStellenbosch! Ukuthweswa kwakho isidanga lixesha apha elakha labaluleka, kwaye likwalixesha eliphawula ukuqalisa kwakho ubudlelwane obuqhubekayo kunye nale yunivesithi owawusakufunda kuyo. IOfisi yabo Babesakuba Ngabafunda Apha yiyo ekunxulumanisa neYunivesithi ubomi bakho bonke.

Zininzi iindlela zokuhlala uqhagamshelkile.

IMpelaveki yoBuyelo-khaya ubenoSapho

IMpelaveki yoBuyelo-khaya ubenoSapho eyenzelwe abo babesakufunda apha yenzeka ukusuka ngoLwesine umhla we-8 kwinyanga yoMsintsi ukuya kutsho ngoMgqibelo umhla we-10 kweyoMsintsi 2022 kwikhampasi yaseStellenbosch. Iingcumbol ezithe vetshe zifumaneka ku-www.matiesalumni.com.

Joyina i-Maties Connect

Iqonga lethu le-www.matiesconnect.com liza kukunceda ekwandiseni inani leengcali onxibelelana nazo, ekufumaneni umcebisi onamava, ukufumana amathuba omsebenzi, ukwazisa ishishini lakho, ukufuna umcebisi onamava, ekufikeleleni kwabanye ababefunda apha nasekubeni uhlale usazi ngokwenzekayo ngale yunivesithi owawusakufunda kuyo.

Yiba yinxalenye yeQela labo baBesakuba ngaBafundi balapha

Iqela loPhuhliso nezoNxibelelwano lwabo baBesakuba ngaBafundi balapha lisungula amaqela abo babesakuba ngabafundi apha netshapta zawo naza kuzinza kweli lizwe nakwamanye amazwe ukuze kunxibelelwane ngabo babesakuba ngabafundi apha abakwiingingqi ezithile oko kusenziwa ngokunxibelelana rhoqo nangeendibano zasekuhlaleni nge-intanethi nangobuso ngobuso. Ukuba ufuna iinkcukacha ezithe vetshe malunga nendlela yokujoyina okanye yokuvolontiya nokuthatha inxaxheba kwiqela okanye itshapta ehlabathini, thumela i-imeyili ku-alumnihubs@sun.ac.za.

Gradeplegtighede | Graduation Ceremonies

1. 4 April 2022 (09:00)

| | |
|---|----|
| Fakulteit Opvoedkunde Faculty of Education | 9 |
| Doktorale Kwalifikasies Doctoral Qualifications | |
| Ander Kwalifikasies Other Qualifications | |
| Fakulteit Teologie Faculty of Theology | 10 |
| Doktorale Kwalifikasies Doctoral Qualifications | |
| Ander Kwalifikasies Other Qualifications | |
| Fakulteit Krygskunde Faculty of Military Science | 12 |
| Doktorale Kwalifikasies Doctoral Qualifications | |
| Ander Kwalifikasies Other Qualifications | |

2. 4 April 2022 (13:00)

| | |
|--|----|
| Fakulteit AgriWetenskappe Faculty of AgriSciences | 19 |
| Doktorale Kwalifikasies Doctoral Qualifications | |
| Ander Kwalifikasies Other Qualifications | |

3. 5 April 2022 (09:00)

| | |
|---|----|
| Fakulteit Regsgeleerdheid Faculty of Law | 29 |
| Doktorale Kwalifikasies Doctoral Qualifications | |
| Ander Kwalifikasies Other Qualifications | |

4. 5 April 2022 (13:00)

| | |
|--|----|
| Fakulteit Geneeskunde en Gesondheidswetenskappe Faculty of Medicine and Health Sciences | 36 |
| Eregraad Honorary Doctorate | |
| <i>Patrice Matchaba</i> | |
| Doktorale Kwalifikasies Doctoral Qualifications | |
| Ander Kwalifikasies Other Qualifications | |

5. 5 April 2022 (17:00)

| | |
|--|----|
| Fakulteit Ingenieurswese Faculty of Engineering | 46 |
| Eregraad Honorary Doctorate | |
| <i>Andries (Andy) Calitz</i> | |
| Doktorale Kwalifikasies Doctoral Qualifications | |
| Ander Kwalifikasies Other Qualifications | |
| Kanselierstoekenning Chancellor's Award | |
| <i>Jan Wium</i> | |

6. 6 April 2022 (09:00)

| | |
|---|----|
| Fakulteit Natuurwetenskappe Faculty of Science | 57 |
| Doktorale Kwalifikasies Doctoral Qualifications | |
| Ander Kwalifikasies Other Qualifications | |

7. 6 April 2022 (13:00)

| | |
|---|----|
| Fakulteit Lettere en Sosiale Wetenskappe (Groep 1) Faculty of Arts and Social Sciences (Group 1) | 67 |
| BA (Humanities); BA (International Studies); BA (Human Resource Man); BA (PPE); BA (Development and Environment); BA (Social Dynamics); BA (Socio-Informatics); BA (Sport Science); BAHons (History); BAHons (Geography and Environmental Studies); BAHons (Philosophy); BAHons (Political Science); BAHons (Psychology); BAHons (Social Anthropology); BAHons (Sociology); MA (Clinical Psychology); MA (Geographical Information Systems); MA (Geography and Environmental Studies); MA (History); MA (International Studies); MA (Philosophy); MA (Political Science); MA (Psychology); MA (Socio-Informatics); MA (Sociology); MPhil (Applied Ethics); MPhil (Monitoring and Evaluation Methods); MPhil (Science and Technology Studies); MPhil (Transdisciplinary Health and Development Studies); MPhil (Urban and Regional Science); MPhil (Information and Knowledge Management); M (Urban and Regional Planning); PGD (Monitoring and Eval); PGD (Disaster Risk Studies and Development); PGD (Knowledge and Information Systems Management); PhD (Geography and Environmental Studies A); PhD (History); PhD (Political Science); PhD (Sociology) | |
| Doktorale Kwalifikasies Doctoral Qualifications | |
| Ander Kwalifikasies Other Qualifications | |

8. 6 April 2022 (17:00)

Fakulteit Lettere en Sosiale Wetenskappe (Groep 2) | Faculty of Arts and Social Sciences (Group 2)

76

B Social Work; BA (Law); BA (Lang and Culture); BA (Fine Arts); BA (Drama and Theatre Studies); B Music; Dip (Practical Music Studies); Higher Certificate (Music); BAHons (Afrikaans and Dutch); BAHons (Ancient Cultures); BAHons (Chinese); BAHons (Drama and Theatre Studies); BAHons (English Studies); BAHons (French); BAHons (General Linguistics); BAHons (German); BAHons (Journalism); BAHons (Translation); BAHons (Visual Studies); BAHons (African Languages); BAHons (Visual Arts Illustration); BAHons Music; MA (African Languages); MA (Afrikaans and Dutch); MA (Ancient Cultures); MA (Drama and Theatre Studies); MA (English Studies); MA (French); MA (General Linguistics); MA (Journalism); MA (Translation); MA (Visual Arts); MMus; MPhil (Film Music); PGD (Music Technology); PhD (African Languages); PhD (Afrikaans and Dutch); PhD (Ancient Cultures); PhD (Drama and Theatre Studies); PhD (English Studies); PhD (General Linguistics); PhD (Social Work)

Eregraad | Honorary Doctorate
Diana Ferrus

Doktorale Kwalifikasies | Doctoral Qualifications
Ander Kwalifikasies | Other Qualifications

9. 7 April 2022 (09:00)

Fakulteit Ekonomiese en Bestuurswetenskappe (Groep 1) | Faculty of Economic and Management Sciences (Group 1)

83

BCom (Industrial Psychology); BCom (International Business); BCom (Law); BCom (Management Sciences); BCom (Mathematical Sciences); BComHons (Business Management); BComHons (Financial Risk Management); BComHons (Human Resources Management); BComHons (Industrial Psychology); BComHons (Logistics Management); BComHons (Mathematical Statistics); BComHons (Operations Research); BComHons (Transport Economics); MCom (Business Management); MCom (Financial Risk Management); MCom (Human Resources Management); MCom (Industrial Psychology); MCom (Logistics Management); MCom (Mathematical Statistics); MCom (Quantitative Management); MCom (Statistics); MCom (Taxation); MCom (Transport Economics); MPhil (HIV/AIDS Management); PGD (Marketing); PGD (HIV/AIDS Man); PGD (Strategic Human Res); PGD (Transport and Logistics); PhD (Industrial Psychology); PhD (Statistics)

Doktorale Kwalifikasies | Doctoral Qualifications
Ander Kwalifikasies | Other Qualifications

10. 7 April 2022 (13:00)

Fakulteit Ekonomiese en Bestuurswetenskappe (Groep 2) | Faculty of Economic and Management Sciences (Group 2)

91

BAccLLB; B Accounting; BCom (Actuarial Science); BCom (Economic Sciences); BCom (Financial Accounting); BCom (Management Accounting); BComHons (Economics); BComHons (Management Accounting); BComHons (Statistics); MAcc; MCom (Actuarial Science); MCom (Computer Auditing); MCom (Economics); PGD (Accounting); PGD (Actuarial Science); PhD (Agricultural Economics); PhD (Economics)

Doktorale Kwalifikasies | Doctoral Qualifications
Ander Kwalifikasies | Other Qualifications

Kanselierstoekenning | Chancellor's Award
Johan van Rooyen

11. 7 April 2022 (17:00)

Fakulteit Ekonomiese en Bestuurswetenskappe (Groep 3) | Faculty of Economic and Management Sciences (Group 3)

99

Diploma in Public Accountability; Advanced Diploma in Public Accountability; Dip (Sustainable Development); B in Public Admin Hons; BComHons (Public and Development Management); MBA; MCom (Public and Development Management); MPA; MPhil (Development Finance); MPhil (Environmental Management); MPhil (Futures Studies); MPhil (Management Coaching); MPhil (Sustainable Development Planning and Management); PGD (Business Management and Administration); PGD (Development Finance); PGD (Environmental Man); PGD (Financial Planning); PGD (Future Studies); PGD (Leadership Development); PGD (Project Management); PGD (Sustainable Development); PhD (Business Management and Administration); PhD (Development Finance); PhD (Public and Development Management)

Doktorale Kwalifikasies | Doctoral Qualifications
Ander Kwalifikasies | Other Qualifications



Fakulteite

Opvoedkunde

Krygskunde

Teologie

4 April 2022 - 09:00

Faculties

Education

Military Science

Theology

4 April 2022 - 09:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

Staan asseblief

1. Akademiese prosesie kom die saal binne.
2. Speel van die Nasionale Lied.
3. Formele konstituering deur die Visekanselier.
4. Verwelkoming deur die Visekanselier.
5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Visekanselier.
6. Sluiting deur die Visekanselier.
7. Akademiese prosesie verlaat die verhoog.

Programme

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Please stand

Please sit

Please stand

1. Entrance of academic procession into the hall.
2. Playing of the National Anthem.
3. Congregation formally constituted by the Vice-Chancellor.
4. Welcome by the Vice-Chancellor.
5. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Vice-Chancellor.
6. Closing by the Vice-Chancellor.
7. The academic procession leaves the stage.

Fakulteit Opvoedkunde | Faculty of Education

DOKTORALE KWALIFIKASIES | DOCTORAL QUALIFICATIONS

DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

BESTER, Marianne (Curriculum Studies)

An integrative approach to the development of expertise in higher education: An inquiry into the curriculum of a professional master's degree programme

This study investigates the multifaceted and complex concept of expertise. Using a multi-perspectivist disciplinary lens, a heuristic conceptual tool is developed to evaluate and promote expertise in professional curricula in higher education. By applying activity theory and legitimation code theory to a current professional master's programme at one South African university, the study offers new insights into the development of professional expertise through a multilayered and multidimensional curriculum framework. The framework can be used as a heuristic instrument to help university academics and curriculum developers create, evaluate and renew education and training programmes relating to professional expertise.

Supervisor: Prof E Bitzer

Co-supervisor: Prof M Fourie-Malherbe

MARALACK, John Lourens (Curriculum Studies)

Contemporary issues in an Economics curriculum: Interpretive case studies with Economics teachers in the Cape Winelands district

How well Economics teachers implement curriculum imperatives is closely tied to their understanding of the subject matter (knowledge) and their teaching approaches (pedagogies). This study explores teachers' conceptual understanding of "contemporary economic issues", as listed in the Curriculum and Assessment Policy Statement (CAPS), to establish how these understandings are translated into their teaching practices. The qualitative case study reveals how some teaching challenges relate to environmental and digital realities, inadequate infrastructure, limited resources, and the lack of continuous professional development. Yet it also confirms teachers' willingness and critical role as epistemic agents to achieve the definitional curriculum objectives.

Supervisor: Dr C America

Co-supervisor: Prof CPS Reddy



Fakulteit Teologie | Faculty of Theology

DOKTORALE KWALIFIKASIES | DOCTORAL QUALIFICATIONS

DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

CHILONGOZI, Mwawi Nyirenda (Practical Theology)

Microfinance as a tool for socio-economic empowerment of rural women in Northern Malawi: A Practical Theological Reflection

This study explores the nature and impact of existing savings-and-loans groups run by rural women in the communities of Bwengu and Bolero in Northern Malawi with a view to better understanding the role of the church in microfinance among rural women. The empirical findings indicate that microfinance is beneficial to individual women, their families and communities, and that the benefits include financial independence, child well-being and a reduction in gender-based violence. It is argued that churches should be encouraged to engage in such models of microfinance for the benefit of the entire community.

Supervisor: Prof NF Bowers-Du Toit

Co-supervisor: Prof LJM Claassens

COBONGS, Bitrus (Old Testament)

Memories of Enslavement as Identity Formation in the Legal Collections of the Pentateuch

In all three of the legal collections in the first five books of the Bible, enslavement memories (such as the introduction to the Ten Commandments: "I am the Lord your God, who brought you out of Egypt, out of the land of slavery") were used as a foundation for identity formation in different periods of ancient Israel's history. The memories of suffering were used to motivate an increasingly more dignified treatment of slaves in different societal contexts from the seventh century BCE onwards. This study challenges African Biblical scholarship to engage with their painful colonial past in a theologically constructive manner.

Supervisor: Prof HL Bosman

HOMBANA, Mphumezi (New Testament)

The crucifixion and death of Jesus in Mark 15:21–41, from the perspective of its redaction history in the New Testament gospels

This study investigates how the passion tradition of Jesus was redacted in the four canonical gospels. It analyses the use of possible source material in the Gospel of Mark, and how the Gospels of Matthew, Luke and John interpreted the Markan passion narrative. The redaction-critical analysis undertaken provides important insights into how Mark 15:21–41 was interpreted in different contexts during the first century, and contributes to the ongoing debate about the relationship between the Synoptic Gospels and the Gospel of John.

Supervisor: Prof MJ Nel

KIM, Kijoong (Systematic Theology)

Cruelty to animals in the East Asian context: Andrew Linzey's animal theology in conversation with eco-theology

Cruelty to animals poses a serious moral problem to the world today. This study revises humans' view of animals by offering a theological and ethical reinterpretation of our shared place and roles in creation. It addresses the implications of cruelty to animals in East Asia by engaging Andrew Linzey's pioneering work in animal theology, and selected resources from the field of eco-theology. The outcome is a reinterpretation of our understanding of God, humanity, and animals. These theological and ethical resources enable us to move away from anthropocentric theologies while promoting an organic and eco-centric understanding of the relationships between God, humans, and non-human animals.

Supervisor: Prof DA Forster

MELLOWS, Susan Pamela (Practical Theology)

Social transformation through affirmation of human dignity: a case study of 'Learn to Earn'

This study ascertains the contribution of spirituality in a faith-based organisation (FBO) towards attaining social transformation through the affirmation of human dignity. Based on the empirical evidence gathered in a case study of FBO Learn to Earn, it is suggested that this organisation assists those who are economically deprived to overcome powerlessness by activating their agency as their human dignity is affirmed and vocation is subsequently recovered. Therefore, the recent interest in the inclusion of spirituality in development discourse is to be welcomed as a beneficial addition to attaining social transformation.

Supervisor: Prof NF Bowers-Du Toit

MUDZANIRE, Suspicion (Missiology)

A Missiological investigation into the role of the Church of Christ's medical missions as transformational development in Mashoko, Zimbabwe

This study investigates the role of the Church of Christ's medical missions in promoting transformational development in the rural Zimbabwean community of Mashoko. The investigation considers a whole-person approach to well-being as a critical development requirement and missional issue demanding a more comprehensive response from the church. The study reveals a persistent Western, compartmentalised view of human well-being in the ministry praxis and delivery model. It is argued that an in-depth appropriation of the missional hermeneutic of "mission as transformation" promotes a more comprehensive medical ministry that is responsive to the health needs of rural African communities.

Supervisor: Prof Henry Mbaya

OWIREDU, Kennedy Kwame (New Testament)

Translating loudaios Concepts in Multifaceted Contexts: An Intertextual Approach to the Rhetoric of 1 Corinthians 15

Using intertextuality to uncover the rhetoric of the Pauline text of 1 Corinthians 15, this study demonstrates that Paul's loudaios, ethnoculturally nested identity remains central and relevant to an understanding of his person and use of the Scriptures of Israel. Anachronistic Christian categories, generalised historical-critical methodologies and Western ideologies have fed into colonialist and imperialist agendas against African and other Two-Thirds World readers. In ways analogous to how Paul sustained his objective in negotiating the identities of his multifaceted Gentile audiences, Bible reading and translation in Africa can glean much from the Pauline paradigm.

Supervisor: Prof J Punt

PEARSON, Steve (Systematic Theology)

Perspectives on human identity and the doctrine of God: A critical reflection on identity in a market economy

This study examines the work of British trinitarian theologian Colin Gunton, seeking to reposition identity as relational by re-examining the doctrine of God. Central to Gunton's model is a criticism of individualism, both in church and society, as offering a deceptive paradigm. Gunton's views are then contrasted with selected contemporary Christian engagements with the market economy, which, the study argues, is individualism's most formative institution. It is concluded that contemporary theology is often an unwitting consumer of individualism. The consequence is seen in a more transactional theology of atonement, and an engagement with the market dominated by ethics and evangelism.

Supervisor: Prof DA Forster

PEMBAMOYO, Eston Dickson (Missiology)

A Missional Theological Response to Environmental crisis in Malawi

This study investigates 'gaps' in the church's response to the environmental crisis in Malawi. It argues that a missional theological response of the church, entrenched in missio Dei, can influence effective ecological stewardship and ensure full participation of all stakeholders in earth's conservation. The study discovers that, despite internal conflicts, geopolitical influences, institutionalism, an identity crisis, and issues of power and authority, the church has the potential and ability to promote environmental justice and help reduce the current ecosystem and biodiversity challenges in Malawi and Southern Africa.

Supervisor: Prof Henry Mbaya

SIMON, Christiane Johanna (Systematic Theology)

'Digital Surveillance' from the Perspective of 'Christian Freedom': A Theological Assessment in Conversation with Martin Luther and Dietrich Bonhoeffer

This study critically evaluates digital surveillance and its dehumanising effects from the vantage point of Christian freedom in the tradition of the Protestant Reformation. Against digital objectification and an ambiguous understanding of the human person, the study affirms the role of responsibility and the value of individual personhood. It indicates how an account of freedom based on justification by grace and oriented towards others can overcome a self-serving notion of freedom as convenience, safety and predictability. As an antidote to dependency, fear of uncertainty, digital self-validation and irreversible data records, it can facilitate both authentic self-realisation and responsible, ethical action.

Supervisor: Prof RR Vosloo

TIBUS, Van Cliburn (Missiology)

Integral Mission and Drug Abuse in the Changing Landscape: Mobilizing the United Church of Christ in the Philippines 'Together Towards Life'

This study identifies a three-dimensional research problem: disunity in churches' response to the war on drugs in the Philippines; identity constructs and powerlessness as contributors to substance abuse, and analyses and actions excluding complex factors that shape religious and social transformations. The philosophy and analytics of critical realism inform the study's approach to identity, powerlessness, and the power of persons across religious and social contexts (relations, agency, structure and culture). A model of public witnessing (integral mission) is proposed that highlights visible and invisible powers in mobilising vulnerable persons and the United Church of Christ in the Philippines, as a postcolonial landscape.

Supervisor: Prof DX Simon

VISSER, Jacoba Maryna Helena (New Testament)

Perfecting poverty: A rhetorical investigation of poverty and masculinities intersecting in James

James constructs multiple relationships between first-century masculinities, poverty and perfection. The epistle invokes ideal masculinity, stressing self-control of own and other bodies, endurance and steadfastness. At the same time, however, by reversing their status and appearance with honour, the poor and vulnerable are given a new identity in the Jesus-following community. Exhorting Jesus followers in terms of contemporary gender ideals, James challenges societal norms in holding that perfect believers show honour to the poor because the perfect male God glorifies and exalts them. Going against the norms of the ancient society, therefore, James both confirms and reconstructs perfection in terms of masculinity and poverty.

Supervisor: Prof J Punt

Co-supervisor: Prof PBA Smit (*external*)



Fakulteit Krygskunde | Faculty of Military Science

DOKTORALE KWALIFIKASIE | DOCTORAL QUALIFICATION

DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

KWAK, Gerrit Werner (Military Science)

Developing a neo-regional transboundary marine protection policy framework between the navies of South Africa, Namibia and Mozambique

This study analyses the marine protection policy frameworks of three Southern African Development Community (SADC) navies. It focuses on three key performance areas – governance, interoperability and capacity building – using a grounded-theory research design. The compromising influence of political volatility, economic pressures and constrained naval capabilities between the three navies necessitate a transboundary policy solution in support of a regional blue economy. The transboundary marine protection policy framework proposed in this study will be instrumental in improving ocean governance and repositioning SADC navies in a more supportive role in the social security programmes of each respective country and the region overall.

Supervisor: Prof JL Jansen van Rensburg

Co-supervisor: Prof KI Theletsane

Fakulteit Opvoedkunde | Faculty of Education

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Wysbegeerte Master of Philosophy

Bouwer, Willem Christiaan (Higher Education)
Braak, Doulette (Higher Education)
Dlamini, Batfobile Pearl (Education and Training for Lifelong Learning)
Joubert, Daisy Christine (Education and Training for Lifelong Learning)
Marais, Karel (Higher Education)
Newton, Gillian (Education and Training for Lifelong Learning) (*cum laude*)
Pillay, Dharshini (Education and Training for Lifelong Learning)

Magister in die Opvoedkunde in Opvoedkundige Sielkunde Master of Education in Educational Psychology

Le Fleur, Whitney Grace
Rabie, Cerise (*cum laude*)
Rawlins, Liza-Mari
Rocchi, Jacomien
Rottaro, Samantha Lynn
Wessels, Sonja (*cum laude*)

Magister in die Opvoedkunde Master of Education

Adze, Emmanuel Teba (Education Policy Studies)
Botha, Myrincia (Curriculum Studies) (*cum laude*)
Lourens, Ilze (Curriculum Studies) (*cum laude*)
Nieuwoudt, Maria (Curriculum Studies)
Oellermann, Anchen (Educational Support) (*cum laude*)
Shilamba, Mirjam Ndeitodino (Curriculum Studies)

Honneurs-Baccalaureus in die Opvoedkunde in Onderwysontwikkeling en Demokrasie Bachelor of Education Honours in Education Development and Democracy

Mbebe, Mongezi
Rix, Andre
Tshakubi, Nomthandazo Beauty

Honneurs-Baccalaureus in die Opvoedkunde in Taalonderwys Bachelor of Education Honours in Language Education

Botes, Deidre Monette (*cum laude*)
De Fleuriot De La Coliniere, Michelle (*cum laude*)
Less, Kelly
Van Rhee de Van Oudtshoorn, Kristen

Nagraadse Onderwysertifikaat in Verdereonderwys- en Onderrigopleiding Postgraduate Certificate in Education in Further Education and Training Teaching

Abrahams, Aqeelah
Bowers, Serelia Gisela
Brown, Kaylen Robin
Foloti, Ntombizanele Portia
Hendricks, Terri-Lee
Herman, Leigh

Kalimashe, Nombongo
Kilowan, Mègan Clementine
Koopman, Ronel
Mmaboshego, Yvette Kanyane
Moon, Georgina Deborah (*cum laude*)
Mungle, Philippa Sophie
Ndyalivane, Amanda
Ngakane, Lerato Daphne
Rossouw, Chante Jonay
Smith, Nicole Candice
Sotondoshe, Lilitha Jamie-Lee (*cum laude*)
Zenzile, Amanda
Zindela, Asanda Nomfundo

Baccalaureus in die Opvoedkunde (Algemene Onderwys) Bachelor of Education in General Education

Botha, Stephanie (Intermediary and Senior Phases)

Baccalaureus in die Opvoedkunde in Intermediêrefase-onderwys Bachelor of Education in Intermediate Phase Teaching

Fischer, Alfred Hannes Dakota



Fakulteit Teologie | Faculty of Theology

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Wysbegeerte

Master of Philosophy

Nyoka, Ayanda (Religion and Culture) (*cum laude*)

Magister in die Teologie

Master of Theology

Adams, Jill-Ann (Practical Theology: Clinical Pastoral Care)

Basson, Bruce Ashwin (Practical Theology: Ministry)

Bwosh, Samuel Deme (Practical Theology)

Els, Johannes Petrus Jacobus (Practical Theology: Clinical Pastoral Care) (*cum laude*)

Gouws, John Andrew (Practical Theology: Clinical Pastoral Care)

Karsten, Cornelia Elizabeth (Practical Theology: Ministry) (*cum laude*)

Madimabe, Lucas Sello (Practical Theology: Ministry)

Marais, Frikkie Evert (Practical Theology: Ministry) (*cum laude*)

Marais, Shaun Henry (Practical Theology: Youth Ministry)

Martin, Benjamin Ernest (Practical Theology)

Mashalaba, Gringoe Thandile (Practical Theology) (*cum laude*)

Mbata, Nobuhle Gladys (Practical Theology)

Niehaus, Heinrich Frederick (Systematic Theology) (*cum laude*)

Ntlapo, Headman (Missiology)

Potgieter, Rene (Practical Theology: Ministry)

Ragette, Joanita Ragette (Practical Theology: Clinical Pastoral Care)

Randall, Cornelius Johannes (Practical Theology: Clinical Pastoral Care) (*cum laude*)

Retief, Pieter Johannes (Practical Theology: Clinical Pastoral Care) (*cum laude*)

Snyders, Andrew Nicholas (Practical Theology: Ministry) (*cum laude*)

Tromp, Hendry Hesting (Practical Theology) (*cum laude*)

Vrey, Daniel Divan (Practical Theology) (*cum laude*)

Magister Divinitatis

Master of Divinity

Buys, Amaryne (Ministry)

Fihla, Noxolo Wongakazi (Ministry)

Frieslaar, Michaeline Aliche (Ministry)

Jonaan, Don-Marco Algarth (Ministry)

Windvogel, Aidan Pierre (Ministry)

Nagraadse Diploma in Teologie

Postgraduate Diploma in Theology

Baron, Aiden Jaques Daniel

Booyesen, Vuyokazi

De Kock, Stephanus Jacobus

Griffiths, Portia

Joseph, Philipa Joy

Lawrence, Christopher Frederick

Marais, Janneke Alta (*cum laude*)

Mgidlana, Pauline Nomonde

Saka, Arnold Kalembe Saka

September, Sue-Kyla

Tshala, Katshunga (*cum laude*)

Baccalaureus in die Teologie

Bachelor of Theology

Godfrey, Divan Ryan

Hunter, Robyn

Layman, Astrid Nicole

Lumkwana, Maphuthuma Alfred

Masoga, Lerato Lekoba

Ntloni, Lumka

October, Lucia

Paulse, Heinrich

September, Raquel Brittany

Simelane, Celenkosini Hopewell

Baccalaureus Divinitatis

Bachelor of Divinity

Mactavie, Lyndon Lloyd

Van den Berg, Andene

Fakulteit Krygskunde | Faculty of Military Science

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Krygskunde Master of Military Science

Bester, Louis Andries (Security and Africa Studies) (*cum laude*)
Choabi, Motshidisi Martha Solome (Military Science)
Du Toit, Louis Michael (Military Geography)
Joseph, Rhondine Candice (Organisation and Resource
Management)
Punt, Carl Heinrich (Military History)

Honneurs-Baccalaureus in die Krygskunde Bachelor of Military Science Honours

Gold, Gertruida Rachel (Industrial Psychology (Mil)) (*cum
laude*)
Mlangeni, Nhlanhla Steven (Industrial Psychology (Mil))

Baccalaureus in die Krygskunde Bachelor of Military Science

Du Toit, Berelize
Letsatsi, Sophie Nkele
Makhetha, Teboho Frances
Olyn, Kevin Lenardus
Rathogwa, Maanda



Fakulteit

AgriWetenskappe

4 April 2022 - 13:00

Faculty

AgriSciences

4 April 2022 - 13:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

Staan asseblief

1. Akademiese prosesie kom die saal binne.
2. Speel van die Nasionale Lied.
3. Formele konstituering deur die Kanselier.
4. Verwelkoming deur die Kanselier.
5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Kanselier.
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DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

ABRAHAMS, Brent (Conservation Ecology)

A mixed-method approach towards the evaluation and assessment of integrative research programme outputs: The case of the Invasive Alien Plant management programme Working for Water

This study follows a mixed-methods approach to assess the processes and research of the Working for Water programme. Findings reveal knowledge management deficiencies, and that the loss of key researchers will negatively affect existing collaboration networks. It is shown that research productivity and the relationship between researchers and decision-makers are negatively influenced by inadequate funding, increased competition and bureaucratisation. Addressing these shortcomings requires institutions to conduct and fund targeted, long-term transdisciplinary research that fosters collaboration and knowledge co-production. An integrated research strategy that accounts for knowledge management and the processes underpinning research and decision-making is required to ensure that research is not lost to decision-makers.

Supervisor: Prof K Esler
Co-supervisor: Dr N Sitas

ACKERMAN, Simon Alexander (Forest Science)

Industrial forestry compartment characteristics: the effect on end of rotation processes and the forestry supply chain

Plantation forestry represents a unique rural industry that supplies the nation's needs for wood and wood-based products. Timber is harvested with a range of technologies and systems, but all require continuous development to improve economic sustainability as markets diversify and resources become more constrained. This study considers the impact of machine and investment size on harvesting costs and harvester efficiency, and the interaction between the two. It further investigates and quantifies the cost of variation in tree sizes for timber harvesting, showing a clear link between heterogeneity and cost. Finally, it looks at solutions for mechanising early thinning to promote homogeneity.

Supervisor: Prof B Talbot
Co-supervisor: Dr R Astrup (*external*)

ATKINSON, Jonathan (Soil Science)

Using Remote Sensing and geospatial information systems to classify local landforms using a pattern recognition approach to improve digital soil mapping

Applying remote sensing and geospatial information systems, this study investigates using a pattern recognition approach to classify local landforms for better soil mapping. This is done against the backdrop of the multiscale problems of digital terrain analysis in KwaZulu-Natal. The study advances the existing state-of-the-art approach of terrain generalisation and scalar protocols for soil-landscape covariate applications across various sensor platforms and spatial scales. It also provides an improved terrain unit mapping concept using geomorphons. Leveraging geospatial solutions for improved natural resource assessments, the study describes the use of digital elevation model optimisation for uniform classification of soil-landscape properties for input to soil mapping applications.

Supervisor: Dr WP de Clercq
Co-supervisor: Dr A Rozanov

BLANCKENBERG, Anelle (Horticultural Science)

Quantity and quality losses of 'Crimson Seedless' grape and 'Packham's Triumph' pear along the supply chain and associated impacts

The scale of postharvest losses is substantial. Reducing these will help create more sustainable and resilient food systems and reduce greenhouse gas emissions. Prior to this study, there was no primary research data on the magnitude of losses in the fresh-fruit value chain in South Africa. Based on the study findings, the financial losses due to postharvest losses of grapes and pears are estimated to be over R204 million and R831 million per annum respectively. The study also stresses the importance of quantifying postharvest losses along the supply chain, and the need for synthesised information to support evidence-based investments and policies.

Supervisor: Prof UL Opara
Co-supervisor: Prof OA Fawole



CLOETE, Johanna Cecilia (Agricultural Economics)

Investigating farm-level exit decisions and exit rates in commercial agriculture in South Africa, an agent-based approach

This study – the largest of its kind in South African commercial agriculture to date – investigates farm-level exit decisions and exit rates. Clustering is used to identify the characteristics of producers planning to exit. In a subsequent regression analysis, the drivers of the ex-ante decision to exit or remain in agriculture are determined, highlighting the interplay between business climate and capital invested. Following an agent-based approach, these individual exit decisions are upscaled to assess the structural impact at a national level. The findings are critical to the ongoing interaction between demand for and supply of land in the land reform debate.

Supervisor: Dr WH Hoffmann

Co-supervisor: Dr JC Greyling (*external*)

DE BEER, Tarryn (Horticultural Science)

Alternative postharvest technologies for the maintenance of Parthenon broccoli quality during export and domestic marketing

This study evaluates the ability of postharvest technologies such as modified atmosphere packaging (MAP) and an ethylene inhibitor (1-MCP) to extend the storability of fresh headed broccoli for domestic and export marketing. The combined effect of these technologies is studied under industry-relevant cold chains at optimal and higher temperatures to preserve the fresh sensory, nutritional and visual quality. It is found that packaging types and 1-MCP treatment methods previously unexploited contribute to the commercial application of these technologies. These findings emphasise the value of the adoption of 1-MCP and MAP for quality maintenance in the domestic and export handling chain of broccoli.

Supervisor: Dr EM Crouch

Co-supervisor: Prof KI Theron

ECKERT, Michelle (Conservation Ecology)

Conservation of soil biodiversity in South African timber production landscapes

Soil arthropods are critical in maintaining resilient soils, yet are understudied globally. This study finds the conservation of remnant grassland and indigenous forest in production landscapes to be highly effective in mitigating the impact of forestry on soil biota across taxa and regions. Prioritising areas with high natural heterogeneity maximises landscape-level species turnover. It is found that soil biodiversity in commercial plantation areas is surprisingly high in terms of local, landscape-scale and functional diversity, and resilient to disturbances – mainly due to morphological and ecological adaptations for survival under plantation conditions. These findings constitute a valuable contribution to existing knowledge on soil fauna conservation.

Supervisor: Dr R Gagher

Co-supervisors: Profs JS Pryke, MJ Samways

GHEZELBASH, Atousa (Agricultural Economics)

Organic wine: Choice and consumer value perceptions

The consumption of organic wine is generally ascribed to altruistic motives, but this needs to be tested. To this end, this study offers a fresh theoretical perspective on how organic wine consumers develop and manifest their value perceptions, and why some float between organic and conventional wine. A constructivist grounded-theory approach is used to address these questions. Results show that consumers in the United Kingdom develop perceptions of value through an interplay between the emotions generated by organic wine and perceptions of the benefits obtained through consumption. The motivations of organic wine consumers are personal and selfish rather than altruistic.

Supervisor: Dr E Said

Co-supervisors: Prof N Vink, Dr M van der Merwe

KOTZÉ, Johann De Flamingh (Forest Science)

Development of a national-level invasive alien plant monitoring system for South Africa

The adverse environmental impact of biological invasions has given rise to extensive research and mitigation strategies in this field. A shortcoming, however, is the establishment and implementation of scientifically accurate, long-term methodologies for monitoring the distribution of invasive alien plant species across vast areas. Such distribution data is required at different scales, ranging from high-level policy formulation to detailed impact monitoring of mitigation programmes. This study proposes the design and implementation of a scientifically accurate, statistically rigorous and cost-effective methodology to monitor the range and abundance of major invasive alien plant species in South Africa.

Supervisor: Prof T Seifert

Co-supervisor: Prof DM Drew

MAKATINI, Gugulethu Joy (Plant Pathology)

Characterisation and management of seedborne *Diaporthe* and *Fusarium* species associated with soybean in South Africa

Seedborne species of *Diaporthe* and *Fusarium* result in losses to the soybean industry by reducing germination and causing disease. This study finds the diversity of species in these genera associated with soybean seed in South Africa to be much higher than previously thought. Although these pathogens generally occur at low incidences, individual seed lots can contain more than 70% infected seeds. *Diaporthe longicol/a*, *D. ueckerae* and *Fusarium verticillioides* are shown to be particularly virulent pathogens. Commercial biological control products have limited efficacy against these pathogens compared to chemical control, which is highly effective.

Supervisor: Dr CFJ Spies (*external*)

Co-supervisors: Prof A McLeod, Dr S Lamprecht (*external*)

MAPIYE, Obvious (Animal Science)

Development of a Livestock Management Database System towards sustainable smallholder farming systems in South Africa

This study develops a mobile phone-based livestock management database system (LMDS) for improving the performance and sustainability of commercially oriented smallholder cattle producers in South Africa. Key constraints are low ratios of extension workers to farmers, and inefficient communication between these two groups. The strengths and weaknesses of existing innovations are identified and used to improve the design and user-centricity of the LMDS. Results indicate that most farmers have experience of using information and communications technology, and have a positive perception of the usefulness of the LMDS in livestock production. Farmers also seem willing to pay for accessing the innovation.

Supervisor: Dr AH Molotsi

Co-supervisors: Profs K Dzama, G Makombe

MARIMA, Jacqueline Keena (Animal Science)

The application of genomics and transcriptomics for the characterisation of the genetic diversity of tick resistance in Angus, Brahman, Nguni and Santa Gertrudis cattle artificially infested with *R. microplus* and *R. decoloratus* ticks

Cattle resistance to ticks is a complex trait influenced by the interaction of multiple genes with various immune and non-immune functions. This study explores mechanisms of tick resistance by profiling the genetic basis of the host's immune responses at the tick attachment site. To this end, it uses differential gene expression patterns observed between and within breeds in Angus, Brahman, Nguni and Santa Gertrudis cattle artificially infested with *Rhipicephalus microplus* and *R. decoloratus* larvae. Genes SATB2, CCL26, MZB1, B4GALT1 and MMP12 are identified as potentially useful biological markers for the selection of tick-resistant cattle for breeding, and for the development of anti-tick vaccines.

Supervisor: Prof K Dzama

Co-supervisors: Prof N Jonsson (*external*), Drs MC Marufu (*external*), B Dube (*external*)

MATSIKIDZE, Stenford Ngonidzashe (Wine Biotechnology)

Plant water stress determination using proximal thermal infrared and multispectral reflectance remote sensing techniques

It is anticipated that consistent and more severe droughts will affect viticulture as a result of climate change. Remote sensing tools hold promise for accurate, high-throughput water stress detection in vineyards. This study tests the accuracy of both thermal and multispectral reflectance cameras towards this goal. It is found that proximal multispectral technology is mostly unable to accurately determine grapevine water status under controlled or vineyard conditions. Thermal cameras more accurately detect grapevine water stress under various conditions, but are strongly influenced by cultivar and actual stress levels. The results confirm the importance of rigorously validating the sensors that show promise in precision viticulture.

Supervisor: Prof MA Vivier

Co-supervisors: Drs CA Poblete-Echeverria, P Young

MBUYANE, Lethiwe Lynett (Wine Biotechnology)

Investigating the lipid requirements of wine-related non-*Saccharomyces* yeasts

In *Saccharomyces cerevisiae*, being the dominant wine yeast, lipids are necessary for growth and fermentation performance, and affect flavour and aroma production. However, the lipid requirements and metabolism of other yeasts, which also contribute significantly to wine flavour and aroma, have not been studied in any depth. This study shows for the first time that wine-relevant yeast species differ significantly in cellular lipid profiles and lipid metabolism. This affects their overall adaptation to fermenting grape juice. These yeasts would benefit from specific lipid formulations to enhance their survival and contribution to wine properties.

Supervisor: Prof B Divol

Co-supervisor: Prof FF Bauer

MUNIAN, Andre Craig (Animal Science)

The identification of biomarkers in the growth prediction of the West Coast Rock Lobster, *Jasus lalandii*

The stock of West Coast rock lobster, *Jasus lalandii*, a fisheries resource for South Africa, is at a critically low level. To sustainably rebuild the stock, the fishery is managed based on conventional stock assessment data from the previous season. Therefore, this study explores timelier growth predictors for the next season. To achieve this, a novel approach to fisheries science is used, taking into account physiological and biochemical aspects for stock assessment. The study results provide government fisheries scientists with important initial information from which to develop growth predictors as well as future research directions.

Supervisor: Prof L Auerswald

Co-supervisor: Prof LC Hoffman (*external*)

MUVHALI, Pfunzo Tonny (Animal Science)

The refinement of an artificial insemination protocol in ostriches

Assisted reproduction and positive human–ostrich interactions may improve fertility and docility. This study establishes the seasonality of male and female ostrich reproductive traits, adapts sperm doses and insemination frequencies to maintain fertility, and demonstrates the hatching of chicks after insemination. A female flock producing eggs without males is established. Ostrich temperament is also improved by habituating day-old chicks to humans. Key male and female traits as well as temperament are found to be repeatable and/or heritable, allowing current-flock and future-generation gains. Selection under an assisted reproduction regime could enhance performance and the bird–human interface, promoting ethical and sustainable ostrich farming.

Supervisor: Dr M Bonato

Co-supervisor: Prof SWP Cloete



NEL, Cornelius Loftus (Animal Science)

Studies on genetic responses and genomic characterisation in South African and Australian sheep

This study demonstrates that selection for the composite trait 'Lambs weaned per ewe mated' results in substantial direct genetic gains. Components of the selected trait, namely fertility, twinning and rearing ability, all respond favourably. Lamb survival also benefits from selection, particularly under cold-stress conditions. Genomic analyses comparing common breeds across South Africa and Australia demonstrate close within-breed relatedness, thereby facilitating future cross-country evaluation. Genomic information adds value to the evaluation of live weight, wool and reproduction traits in five institutional resource flocks and five selected commercial flocks participating in sheep recording. Further genomic studies on local sheep are foreseen.

Supervisor: Prof SWP Cloete

Co-supervisors: Prof K Dzama, Dr AA Swan (*external*)

NGUBANE, Nombuso Portia (Conservation Ecology)

Fungal endophyte assemblages associated with twigs of olives in the Core Cape Subregion, South Africa

Plants host fungi in all healthy tissues. These fungal endophytes are important for plant health. This study investigates the effect of host species identity and environmental change on endophytes in cultivated and native olive trees in South Africa. Different olive species are found to share numerous endophytes, some of which are beneficial to the plants, while others act as pathogens. Native hosts in protected areas appear to harbour in-tact and diverse endophytes. However, these are reduced in cultivated hosts and where plants grow in degraded landscapes. These declines may have severe consequences for normal ecosystem functioning and olive cultivation.

Supervisor: Prof F Roets

Co-supervisors: Profs L Dreyer, B Slippers (*external*)

RETIEF, Estianne (Plant Pathology)

Verticillium wilt of tomatoes in South Africa: Biology, quantification and management

Verticillium wilt of tomato crops is an economically important soilborne disease. In this study, *Verticillium dahliae* is shown to be the only species causing this disease in Limpopo, with all populations displaying a clonal structure. Inoculation studies indicate that as little as one microsclerotium (survival structure) per gram of soil can cause disease. The pathogen could be quantified from soil using a low soil sampling strategy and an optimised quantitative, real-time polymerase chain reaction (PCR) assay. Verticillium wilt is effectively controlled under glasshouse conditions using green manuring or the anaerobic soil disinfestation (ASD) application of sorghum x sudangrass or white buffalo grass.

Supervisor: Prof A McLeod

Co-supervisor: Dr S Lamprecht (*external*)

SAUNDERS, Alta (Forest Science)

Investigating the photosynthetic and hydraulic trade-off during drought recovery in *Eucalypts*

Stomatal regulation plays a key role in controlling carbon sequestration and water loss. Plant water supply, a major factor in understanding plant-level carbon sequestration, is not only regulated by stomatal conductance, but also limited by a decrease in hydraulic conductance due to embolism formation. The reduction of xylem conductance due to embolism formation cannot be directly regulated by the plant. However, stomatal regulation can help prevent runaway cavitation. Therefore, this study focuses on how *Eucalyptus* trees respond to drought and drought recovery, the role of stomatal regulation in such response, and how to model this interaction.

Supervisor: Prof DM Drew

SMART, Ricardo Virgill (Wine Biotechnology)

Vineyard cover crop application: Influence on the soil, leaf and wine fermentation microbiome

For this study, triticale and Faba beans were planted as cover crops in three vineyards characterised by different soil types. The effect of these cover crops on the soil microbiota is subsequently assessed using different culture-independent methods. The study also evaluates the potential transfer of microbiota from the soil and cover crops to grapevine leaves and grape must. Key fungal and bacterial genera that are either enhanced or suppressed by the different cover crops are highlighted. Overall, the influence of soil type on the cover crops' contribution to the soil microbial communities seems to be surpassed by vineyard location.

Supervisor: Prof ME Setati

Co-supervisors: Prof FF Bauer, Dr EH Blancquaert

THERON, Kasselmann Jurie (Conservation Ecology)

Biodiversity assessments using remote sensing and integrative modelling for improved conservation management

This study illustrates the use of satellite remote sensing to rapidly monitor species distribution and drivers of change across landscapes over time. Grassland corridors have a lasting positive impact on grasshoppers for up to three years by maintaining high-quality habitat, but are invaded by American bramble. Using deep-learning image fusion, bramble is classified more accurately than with conventional satellite imagery. Bramble is found to hamper biodiversity and reduce functional connectivity across grassland corridors in a timber plantation. It is concluded that grassland corridors maintain their biodiversity in actively managed production landscapes when management incorporates a biodiversity response to disturbance and considers functional connectivity.

Supervisor: Prof JS Pryke

Co-supervisor: Prof MJ Samways

THERON, Simone Norah (Horticultural Science)

Improving Resilience in Rainfed and Irrigated Agriculture under Future Climate in the Winter Rainfall Region of the Western Cape: Lessons from the 2015-2018 Drought

Lessons from the 2015–2018 drought can inform adaptation to climate change for crop production. Focusing on Western Cape commercial wheat and apple farmers, this study uses weather and production data along with a survey questionnaire and in-depth interviews with stakeholders to understand drought impacts and responses. From the results, five key lessons are identified, namely that drought is a recurring phenomenon in this region, forecasts are an essential tool for building resilience, drought indices can be a valuable component of seasonal drought prediction, farmers have high autonomous adaptive capacity, and improving the multiple capitals available to farmers can enhance resilience.

Supervisor: Prof ERM Archer (*external*)

Co-supervisor: Prof S Midgley

TOWERS, Pedro Campbell (Viticulture)

Study of vegetative-reproductive vine balance mapping using moderate-resolution remote sensing information

Modern viticulture requires consideration of the spatial variability of yield and vine size. Remote sensing (RS) has proved capable of capturing the variability of plant vigour, making it an affordable means to map source size. However, yield is difficult to estimate from RS. This study explores the variables involved and the procedures required to determine the vegetative-reproductive vine balance using RS information. The results confirm that vegetative growth variables and yield can be estimated by RS using machine learning and a comprehensive database that contains multiple sites on a long-term temporal scale.

Supervisor: Dr CA Pobleto-Echeverria

Co-supervisor: Dr A Strever

TSHUMA, Flackson (Agronomy)

Tillage effects on soil quality and plant productivity in the Swartland region, South Africa

Continuous and repeated application of synthetic agrochemicals (fertilisers, herbicides, insecticides and fungicides) can lead to soil degradation and development of resistance to herbicides, insecticides and fungicides. The future of sustainable crop production lies in the reduction of synthetic agrochemical applications. This study assesses the effect of reducing the application of synthetic agrochemicals by substituting them with environmentally friendly biochemicals, as well as using infrequent tillage to incorporate soil amendments and for weed control. Data from a long-term experiment (44 years) is evaluated. It is concluded that incorporation of biochemicals and reduced tillage could be beneficial for soil quality and crop productivity.

Supervisor: Dr PA Swanepoel

Co-supervisors: Profs F Rayns (*external*), JE Bennett (*external*),

Dr J Labuschagne

VAN SCHALKWYK, Roeline (Soil Science)

Evaluation of soil covers to improve and predict their performance for the rehabilitation of coal mines on the Highveld of Mpumalanga, South Africa

Store-and-release covers (SRCs) are an important mitigation method to protect the environment and groundwater from acid mine drainage at rehabilitated mines on the Mpumalanga Highveld, South Africa. Data sets of well- and poorly constructed covers, and the availability of data for predicting long-term performance of SRCs are limited. Consequently, predictive models such as pedotransfer functions to predict the soil hydraulic properties were developed from soil physical properties. Leaf area index values for good and poor vegetation covers were determined and some improvement was made for the Technical Guide for Store-and-Release Covers.

Supervisor: Dr JE Hoffman

Co-supervisor: Prof JL van Zyl

WESSELS, Nadia (Conservation Ecology)

Assessing natural open spaces in ecosystem service provision for enhanced urban planning in the Global South

Urban natural open spaces are overexploited and remain poorly considered in urban planning, particularly in the Global South, where institutional constraints and complex socioeconomic and political priorities prevail. By interviewing communities, local government officials and ecological experts, this study finds that optimising ecosystem services provision in natural open spaces requires an understanding of how land cover change affects these services. The challenges and opportunities for mainstreaming ecosystem services in urban planning must also be determined, along with community and local government needs. Implementing natural open space plans requires a transdisciplinary approach that incorporates alternative ways of knowing, and feedback between different knowledge systems.

Supervisor: Prof K Esler

Co-supervisors: Drs N Sitas, P O'Farrell (*external*)



Fakulteit AgriWetenskappe | Faculty of AgriSciences

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Natuurwetenskappe Master of Science

Bishop, Robyn (Plant Pathology) (*cum laude*)
Bosman, Robin Nicole (Wine Biotechnology) (*cum laude*)
Brown, Mariska (Wine Biotechnology)
Chuene, Lesiba Tyrone (Wine Biotechnology)
Collop, Amy (Entomology) (*cum laude*)
Degenaar, Nadia (Wine Biotechnology) (*cum laude*)
Dippenaar, Elsje Marthina (Sustainable Agriculture)
Govender, Varoostha (Wine Biotechnology)
Jacobs, Vernon Guy (Plant Pathology) (*cum laude*)
Magwebu, Sinovuyo (Plant Pathology)
Mcmurtry, Sarah Katherine (Wine Biotechnology) (*cum laude*)
Petzsch, Irmela (Wine Biotechnology)
Pillai, Santhuri (Wine Biotechnology) (*cum laude*)
Steyn, Chanel (Plant Pathology) (*cum laude*)
Sutton, Steven Alexander (Wine Biotechnology)

Magister in die Natuurwetenskappe in Landbou Master of Science in Agriculture

Biggs, Simone (Animal Science)
Broeksma, Cornel (Horticultural Science)
Burger, Jani (Horticultural Science)
Craven, Dian (Horticultural Science)
Creevy, Bianca (Animal Science)
De Jager, Muriel Mignon (Entomology) (*cum laude*)
Du Preez, Brannigan Jovern (Oenology)
Du Toit, Nina (Horticultural Science)
Ehlers, Jandre (Agricultural Economics)
Geerkens, Willem Hendrik (Animal Science)
Geldenhuys, Heinrich (Horticultural Science)
Hanel, Emma Claire (Animal Science)
Hattingh, Magdaleen (Soil Science) (*cum laude*)
Hindley, Renoir (Agronomy)
Malan, Izaack Nichol (Animal Science)
Mathidza, Bill (Wine Biotechnology)
Mudau, Fhulufhelo (Animal Science)
Mushunje, Lovelyn Hellen (Animal Science)
Nel, David Mathys Cristoffel (Agricultural Economics)
Oberholzer, Abraham Stephanus (Horticultural Science)
Phasoana, Thabo Johannes (Plant Pathology)
Potgieter, Johan Hendrik (Agronomy)
Ramafoko, Lerato Patricia (Agricultural Economics)
Senyolo, Thapelo (Aquaculture)
Shepstone, Craig Alan (Animal Science)
Spencer, Katharine Anne (Animal Science)
Stapelberg, Wian (Animal Science)
Stofberg, Marlie (Horticultural Science)
Uys, Pieter Hendrik Schalk (Animal Science)
Van der Merwe, Annemarie (Soil Science)
Van der Merwe, Johan Herbst (Soil Science)
Van Lingen, Andrew Frank William (Horticultural Science)
Volschenk, Michael Eugene (Agricultural Economics)

Magister in die Natuurwetenskappe in Bosbou- en Houtwetenskappe Master of Science in Forestry and Wood Sciences

Chatukuta, Tatenda Sylvester (Wood Product Science)
Mahadeo, Leeshan (Forest Science)
Mfuni, Tiza Ignatius (Forest Science) (*cum laude*)
Nieto Lawrence, Juan Sebastian (Forest Science) (*cum laude*)

Magister in die Natuurwetenskappe in Bewaringsekologie Master of Science in Conservation Ecology

Fourie, Michelle (Conservation Ecology) (*cum laude*)
Lehman, Tevan William Key (Conservation Ecology) (*cum laude*)
Muller, Allison Anne (Conservation Ecology)
Stevens, Llyle (Conservation Ecology) (*cum laude*)
Van Deventer, Henno Daniël (Conservation Ecology)
Vermonti, Nicola (Conservation Ecology)

Magister in die Natuurwetenskappe in Voedsel- en Voedingsekerheid Master of Science in Food and Nutrition Security

Bakasa, Clinton (Food and Nutrition Security)
Barkhuysen, Janine (Food and Nutrition Security) (*cum laude*)
Barlow, Viné (Food and Nutrition Security) (*cum laude*)
Handuukeme, Beverly Virginia (Food and Nutrition Security)
Petersen, Ilse (Food and Nutrition Security)
Pillay, Kalle Veronica (Food and Nutrition Security)
Setati, Matlou Bartina (Food and Nutrition Security)
Smit, Jonese Elsje (Food and Nutrition Security)

Magister in die Natuurwetenskappe in Voedselwetenskap Master of Science in Food Science

Dippenaar, Carla (*cum laude*)
Oosthuizen, Marco (*cum laude*)
Ramkisson, Taish (*cum laude*)
Van Schoor, Helene

Nagraadse Diploma in Agronomie Postgraduate Diploma in Agronomy

Odendal, Willem Dreyer
Olivier, Chrischen Anthony
Van Loggerenberg, Johannes Nicolaas Du Toit

Baccalaureus in die Natuurwetenskappe in Landbou Bachelor of Science in Agriculture

Abdel Fattah, Karim Shawky (Plant and Soil Science)
Arends, Luwayne (Viticulture and Oenology)
Badenhorst, Monica (Plant and Soil Science)
Bergh, Willem Johannes Andries (Animal Science with Agronomy)
Bestbier, Louise (Plant and Soil Science)
Botha, Johannes Petrus (Plant and Soil Science)
Boting, Bronwyn Frances (Viticulture and Oenology)
Breytenbach, Amé (Viticulture and Oenology)
Cloete, Jan Sebastian (Plant and Soil Science)
Conradie, Daniël Galvin (Viticulture and Oenology)
Davel, Nicolaas Christoffel (Plant and Soil Science)
De Beer, Hendrik Cornelius (Plant and Soil Science)

De Kock, Jana Salome (Viticulture and Oenology)
Dyosi, Asemahle (Plant and Soil Science)
Little, Shannon Michelle (Viticulture and Oenology)
Mabelebele, Mosima Lettecia (Viticulture and Oenology)
Ockhuis, Jason (Plant and Soil Science)
Pretorius, Abbey (Viticulture and Oenology)
Rieth, Stefan Olaf (Agricultural Economics)
Rossouw, Casper Johannes (Viticulture and Oenology)
Schlesinger, Subrina (Plant and Soil Science)
Trollip, Zandelie (Agricultural Economics)
Wentzel, Lukas Abraham (Plant and Soil Science)

**Baccalaureus in die Natuurwetenskappe in Bosbou in
Bosbou- en Houtwetenskappe
Bachelor of Science in Forestry in Forestry and Wood
Science**

Garnham, Joseph Caleb Hackett
Jordaan, Michelle
Khuzwayo, Cebo Sihle
Kutzer, Karl
Muller, Jean-Ryno
Nefdt, Keenan Colin
Sampson, Tameryn
Theron, Mikal
Van Wyk, Shaundrè Ethan

**Baccalaureus in die Natuurwetenskappe in
Voedselwetenskap
Bachelor of Science in Food Science**

Boutlwanye, Nametsegang Retshegofaditswe
Munford, Julia Christine
Olivier, Francine
Zehrt, Eduard

**Baccalaureus in Landbou
Bachelor of Agriculture**

Africa, Chairó Daniel
Bosman, Leandri
Bruwer, Andre Stephanus
Bruwer, Ludwig Burger
Calitz, Joshua John
Connellan, Mitchell Brian
Conradie, Roux
Cronje, Michael Otto
De Jager, Salomon Hercules Francois (*cum laude*)
De Wet, Kristiaan Johannes
Erasmus, Abraham Hermanus
Grobler, Pieter Heiberg
Hanekom, Van Eeden
Human, Jurie-Wynand
Kitshoff, Matthys Jacobus Bernardus
Kriel, Christiaan Lodewyk
Lambrecht, Johannes Frederik
Le Roux, Hermanus Lambertus
Le Roux, Stephan
Leroux, Ian Alasdair
Lourens, Dirk Casimer
Lyons, Leon Christian
Marais, Déhan Willem Gabriël
Marais, Henlo
Marais, Jacobus Johannes
Meyer, Hendrik Rossouw
Morrison, Cleo Viola
Muller, Cornelius Johannes
Mynhardt, Troy Daniel
Oliver, Tashreeq
Phillips, Jacoba Magdalena Aletta
Price, David Guy
Slabber, Marcel

Solms, Johnnie
Van den Heever, Mardine
Van der Vyver, Johannes Jacobus
Van Deventer, Anje
Van Dyk, Carlo
Van Eck, Marlise
Van Niekerk, Johannes Dreyer
Van Schalkwyk, Daniel Johannes
Van Zyl, Carel Petrus
Vorster, Ben Johann
Walters, Samuel Anthonie
Wilken, Andre Anthony
Williams, Elrico Nico



Fakulteit **Faculty**

Regsgeleerdheid

Law

5 April 2022 - 09:00

5 April 2022 - 09:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

Staan asseblief

1. Akademiese prosesie kom die saal binne.
2. Speel van die Nasionale Lied.
3. Formele konstituering deur die Kanselier.
4. Verwelkoming deur die Kanselier.
5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Kanselier.
6. Sluiting deur die Kanselier.
7. Akademiese prosesie verlaat die verhoog.

Programme

Please stand

Please stand

Please sit

Please stand

1. Entrance of academic procession into the hall.
2. Playing of the National Anthem.
3. Congregation formally constituted by the Chancellor.
4. Welcome by the Chancellor.
5. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Chancellor.
6. Closing by the Chancellor.
7. The academic procession leaves the stage.

DOKTOR IN DIE REGSGELEERDHEID DOCTOR OF LAWS

DE VILLIERS, Cecile (Mercantile Law)

The impact of the legislative regulation of individual educator performance on the delivery of quality basic education

The lack of delivery of basic education of a consistently high quality in South Africa denies learners self-actualisation, precludes economic welfare improvements and prevents transformation of the South African society. Qualified, competent and professional educators are central to the delivery of quality basic education. One contributing factor to the poor state of basic education is the fragmented and inappropriate legislative regulation of educator performance. This study investigates experiences relating to educator misconduct and incapacity within the current legislative framework. Deficiencies in the regulatory system are identified and specific proposals made for a range of legislative amendments.

Supervisor: Prof CJ Garbers

MAHOMEDY, Sameera (Public Law)

Investigating the role of participation in the upgrading of informal settlements: Identifying challenges and opportunities

One of the major remnants of colonialism and apartheid is the large number of informal settlements that were established as a result of a combination of factors, including various race-based planning legislation. Government has shifted its attention from conventional housing programmes to participatory in-situ upgrades of existing settlements. This study investigates the role that participation plays in upgrading informal settlements, and attempts to address the challenges identified, while also highlighting opportunities to strengthen participatory upgrades by using a comparative analysis with Brazil. Ultimately, the study provides a comprehensive legal framework for participatory processes in upgrading projects.

Supervisor: Prof ZT Boggenpoel

MWESIGWA, Peter (Public Law)

Victim participation at international courts and tribunals: A Ugandan perspective

In common law-influenced jurisdictions such as Uganda, the victim of crime is normally not a formal party to the criminal process. The situation is different at the International Criminal Court (ICC). Mirroring the ICC Statute, Uganda's International Crimes Division (ICD) ensures that victim participatory rights are recognised as an essential component of criminal justice proceedings. Employing legal comparative, socio-legal and legal-empirical methods, this study considers the relative costs and benefits of victim participation in a culturally complex legal environment such as Uganda. Certain changes to the functioning of the ICD are also proposed.

Supervisor: Prof G Kemp



Fakulteit Regsgeleerdheid | Law Faculty

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Regsgeleerdheid

Master of Laws

Abala, Lydiah Grace
Amukwa, Aune Nambashu Kandali
Andrews, Anthony Martin
Badenhorst, Helene
Basson, Gideon Burnett (*cum laude*)
Berry, Jan Paul
Booyens, Marietjie
Botha, Ferdinand Marthinus (*cum laude*)
Cloete, Jo-Anne
Cloete, Mariska Antoinette
Coetzee, Anneri
Day, Jamie Leigh (*cum laude*)
Du Preez, Elmi
Ferreira, Soanne
Frolick, Bradley Timothy (*cum laude*)
Garises, Iyishi Kay
Hakaaje, Slevencia Grace Luzeen
Hollands, Rachel Ashleigh (*cum laude*)
Janes, Marcelline Antronique Miceala
La Grange, Jaco
Lebelo, Lesiba Reuben
Leonard, Carmia
Lephoto, Rakweleta
Mvemve, Tsholofelo Charmaine
Mvubu, Sikhokele
Mzozoyana, Lwazi Don
Nangolo, Ono-Robby Alfredo
Nathane, Moleboheng Muriel
Pienaar, Kyle
Roode, Nikita
Smith, Daniéle-B
Swart, Gerbagch Jacobus
Truter, Anelmari
Van der Spuy, Janie Inez (*cum laude*)
Van Vuren, Taydren Sharon
Van Wyk, John Leonard
Venter, Esna
Weideman, Andrea Joy
Wessels, Lara

Baccalaureus in die Regsgeleerdheid

Bachelor of Laws

Azor, Savannah Ariel
Bakker, Celine
Berry, Aerin Jade
Bester, Carla
Boddenberg, Mia Gerda
Boonzaaier, Robynne Laronicia
Borman, Nastassia Clio
Botha, Anya-Larissa
Botha, Sabina Yasmin
Bothma, Mariné
Brand, Simon Brink
Breytenbach, Anais
Buchanan, James Vincent
Bull, Samantha
Burger, Jacobus Stephanus Saul
Buthelezi, Nozibusiso

Cloete, Anastacia Megan
Coetzee, Amorei
Coetzee, Bruce
Compion, Christian Johan
Da Costa, Joshua (*cum laude*)
Davids, Kirstin Rebecca
De Bruyn, Abri Jeremy
De Sousa, Carla
Dooge, Dane
Duggan, Alexandra Jane
Fairweather, Jade Wanda
Feher, Micha
Garland, Judy
Gelant, Andrea Jade
Groenewald, Tertius Adriaan
Hattingh, Sionné
Hendricks, Zhawne Lynn
Henke, Zaskia
Hislop, Estelle Hailey (*cum laude*)
Ismail Mukaddam, Mumtaaz
Jacobs, Charmoné
Jacobs, Jamie Lee
Kajee, Yusuf Ebrahim
Khosa, Vutomi
Knowles, Cameron Stuart
Köstens, Gilda
Kotzee, Aerin Caris
Kriel, Megan Mari
Kruger, Angelique
Kruger, Lara
Kuttschreuter, Rebecca Victoria
Lakin, Carly
Lee, Kerstin Heather
Louw, Jane Adelheid
Lutuli, Hlonelwa
Maharaj, Tajme
Manisunker, Shekar
Mapani, Rumbidzai Laura
Maritz, Annerita
Marthinus, Caleb Joseph
Mashiki, Gabriella Munesu
Mason-Gordon, Samantha Alexandra
Mc Loughlin, Caitlin Ancilla
Meloy, Rachel Sharé
Meyer, Enrico Richard
Michael, Ewin
Moola, Eman
Moshitwa, Mbeki Donald
Müller, Floris Petrus Johannes
Munya Buranga, Tamara
Nell, Christine
Niehaus, Anel
Nwagbara, Ricky Ezenwa
Oates, Celine Tyla
Oliver, Laurie Rae (*cum laude*)
Oosthuizen, Jana Embe
Page, Tayla Katherine
Park, Soobin
Passerini, Matteo Guglielmo
Philander, Jordan Jade
Pienaar, Frances Juanette

Potgieter, Johannes Marius
Pretorius, Lizanne
Ramchunder, Tiyana (*cum laude*)
Reyneke, Tori Leigh
Roos, Megan
Roux, Marté Suzanne
Ruponga, Samantha Kudzai
Ruschenbaum, Heidi-Lee
Schoombie, Aidin
Senior, Christopher Rawson
Seyisi, Thembalethu
Shale, Teboho
Smet, Maxine Marleen John
Stanley, Caydon Jett
Steyn, Megan
Stroud, Jean-Andre
Swanepoel, Sebastiaan
Thysse, Annélichia
Tison, Margaux
Turnbull, Regan Mark
Turner, Kelly
Uithaler, Deliandri Wilmi-Ann
Uys, Hugo (*cum laude*)
Van de Vyver, Deandi Aletta
Van der Watt, Danielle Elana
Van Eyssen, Tasha Sandré
Van Heerden, Mabette
Van Reenen, Dale Leighthan
Van Reenen, Rebecca Emma
Van Wyk, Carli Andrea
Viljoen, Wian
Vlotman, Chrisley Joy
Watson, Emma Rebeka (*cum laude*)
Webster, Brittany Morgan
Williams, Alexander John

Nagraadse Diploma in Belastingreg
Postgraduate Diploma in Tax Law

Bester, Marius
Burger, Ilse Juliana
De Bruin, Andy William
Feni, Tandokazi
Fry, Winston Ruchen
Gantolo, Thembinkosi Moses
Louw, Nicholas Andries
Masina, Sukoluhle
Mbiyo, Xhoba Phumlani
Naicker, Krigan Siveshen
Neethling, Hendrik Johannes
Singh, Farryl Brian
Smith, Jeanice Courtney Marlene
Thobela-Mkhulisi, Jabu Yvonne
Viviers, Jeanne-Mari



Fakulteit

Geneeskunde en
Gesondheidswetenskappe

5 April 2022 - 13:00

Faculty

Medicine and
Health Sciences

5 April 2022 - 13:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

Staan asseblief

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5. Voorstelling van die eredoktorandus en toekenning van die eregraad deur die Kanselier.
6. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Kanselier.
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2. Playing of the National Anthem.
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4. Welcome by the Chancellor.
5. Presentation of the candidate for the honorary doctorate and conferment of the degree by the Chancellor.
6. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Chancellor.
7. Closing by the Chancellor.
8. The academic procession leaves the stage.

Eregraad | Honorary Doctorate

FAKULTEIT GENEESKUNDE EN GESONDHEIDSWETENSAPPE FACULTY OF MEDICINE AND HEALTH SCIENCES

Die graad Doktor in die Natuurwetenskappe (DSc), *honoris causa*, aan
The degree Doctor of Science (DSc), *honoris causa*, to

dr Patrice Matchaba

sy voortreflike bydraes tot die farmakologie en kliniese wetenskap, sy leiersrol om ongelykhede in gesondheidsorg en navorsingsvermoë wêreldwyd reg te stel, en die toepassing van sy kennis om mense oor die wêreld heen beter mediese behandeling en hoër lewensgehalte te bied.

Dr Patrice Matchaba is die voorsitter van die Novartis-stigting in die Verenigde State, 'n organisasie wat daarna streef om die gesondheid van lae-inkomstebevolkings deur verskeie innoverende programme te verbeter.

Hy is in 2000 as mediese direkteur en wetenskapshoof by Novartis in Suid-Afrika aangestel, en het twee jaar later na dié farmaseutiese korporasie se kantoor in Amerika verskuif. Sedertdien het hy naam gemaak in die bedryf, en in verskeie leiersrolle by Novartis uitgeblink. Hy het die suksesvolle ontwikkeling, registrasie en bekendstelling van 'n nuwe, innoverende hartversakingsmiddel (Entresto) gelei en die opening van nuwe middelveiligheid- en risiko-opsporingssentrums in Indië, Argentinië, Ierland en China bestuur.

As 'n passievolle kampvegter vir korporatiewe maatskaplike verantwoordelikheid, is Matchaba ook aan die voorpunt van Novartis se inisiatiewe om ongelykheid in gesondheidsorg wêreldwyd reg te stel. Nuwe malariamedisyne is onder sy leiding ontwikkel, en hy het Novartis se Afrikasekelselsiekteprogram in Afrika suid van die Sahara aangevoer. Daarbenewens het hy 'n nuwe Novartis-organisasie vir Afrika suid van die Sahara bekend gestel wat 47 lande insluit en beoog om toegang tot medisyne te verhoog en gesondheidstelsels in Afrika te versterk.

Sy sterk steun vir die Universiteit Stellenbosch het boonop al tot beduidende finansieringsbydraes tot die Fakulteit Geneeskunde en Gesondheidswetenskappe se opleiding- en navorsingsinisiatiewe gelei.

his outstanding contributions to pharmacology and clinical science, his leading role in addressing disparities in health care and research capacity globally, and applying his knowledge to improve medical treatment and quality of life for people worldwide.

Dr Patrice Matchaba is the president of the Novartis Foundation in the United States, an organisation that seeks to improve the health of low-income populations through various innovative programmes.

He was appointed medical director and chief scientific officer at Novartis in South Africa in 2000 and transferred to the pharmaceutical corporation's offices in the States two years later. Since then, he has made his mark in the industry, excelling in various leadership roles at Novartis. He led the successful development, registration and launch of a new, breakthrough heart failure drug (Entresto) and managed the opening of new pharmacovigilance and safety signal detection centres in India, Argentina, Ireland and China.

A passionate advocate for corporate social responsibility, Matchaba is also at the forefront of Novartis's initiatives to address inequities in health care across the globe. He supervised the development of new antimalaria medicines and initiated the Novartis Africa Sickle Cell Disease Programme in Sub-Saharan Africa. In addition, he launched a new Novartis Africa Sub-Saharan organisation that incorporates 47 countries with the aim of increasing access to medicines and strengthening health systems in Africa.

In addition, his strong support for Stellenbosch University has resulted in significant funding contributions to the Faculty of Medicine and Health Sciences to sustain training and research initiatives.



Fakulteit Geneeskunde en Gesondheidswetenskappe Faculty of Medicine and Health Sciences

DOCTORAL QUALIFICATIONS | DOKTORALE KWALIFIKASIES

DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

CHIBAWARA, Trust (Epidemiology)

Model-Based inference on the impact of early access to antiretroviral therapy to all on HIV incidence Among adolescent girls and young women in Eswatini

The introduction of antiretroviral treatment (ART) has enabled people living with HIV to have a favourable prognosis because of suppressed viral load and has contributed to a global decline in HIV incidence over the past decade. While this achievement is important, the role of widespread use of antiretroviral drugs in an HIV epidemic among adolescent girls and young women is still unknown. This study combined multiple disciplines which include, mathematical-modelling, evidence-synthesis, biostatistics, data-science, and public-health measurements to model the impact of ART on the HIV epidemic. The findings support the implementation of expanded access to ART in populations with a high prevalence of HIV.

Supervisor: Prof PS Nyasulu
Co-supervisor: Prof D Kajungu

EBRAHIM, Zarina (Nutritional Sciences)

The effect of -glucan prebiotic fibre (oats) on the gut microbiome of chronic kidney disease patients (Stage IV and V) and impact on kidney function

Increasing evidence suggests that gut dysbiosis is involved in chronic kidney disease (CKD) progression through various mechanisms and that modulating the gut microbiome may improve outcomes. This study investigated the effect of a β -glucan prebiotic supplement on kidney outcomes, uraemic toxins and the gut microbiome in predialysis CKD participants. The prebiotic did not affect kidney function, while it significantly reduced uraemic toxins and improved the gut microbiome profile.

Supervisor: Prof R Blaauw
Co-supervisor: Prof MR Moosa

GOOSEN, Charlene (Nutritional Sciences)

The effect of oral iron supplementation on the gut microbiome in children living with HIV

In antiretroviral-treated HIV, a chronic disease associated with persistent inflammation, the opposing effects of iron deficiency and inflammation on iron absorption and iron interventions are unclear. Both HIV and oral iron interventions may alter gut microbiota composition. This study investigated nutritional and inflammatory determinants of anaemia, including iron absorption, in the context of perinatally acquired HIV, to ultimately establish the safety of oral iron supplementation in HIV-positive children from a gut microbial perspective. It was found that oral iron supplementation can significantly improve iron status without increasing pathogenic gut microbial taxa in iron-depleted school-age children with virally suppressed HIV.

Supervisor: Prof R Blaauw
Co-supervisor: Prof MB Zimmermann (*external*)

KROON, Elouise Elizabeth (Human Genetics)

Neutrophils as effector cells in resistance to infection by *Mycobacterium tuberculosis* in HIV-infected persons

This study examined the mechanisms of immune protection in individuals who are HIV infected, are highly exposed to *Mycobacterium tuberculosis*, the causative organism of tuberculosis (TB), and never develop active disease, the so-called resister phenotype. The focus was on determining whether neutrophils play an important role in this phenotype. This knowledge will ultimately improve our understanding of how certain people's immune systems are able to protect against TB and potentially aid in the development of prophylactic treatments and vaccines against TB. This work is of particular relevance to South Africa, which has epidemics of both HIV and TB.

Supervisor: Prof E Hoal
Co-supervisors: Profs M Moller, E Schurr, R Wilkinson, G Tromp, A Coussens

LEUKES, Vinzeigh Nicholas (Molecular Biology)

Effect of pharmacological modulation of Myeloid Derived Suppressor Cell function on immune reactivity against *Mycobacterium tuberculosis*

This study focused on adjunctive host-directed therapies to modulate host immunity to increase anti-tuberculosis treatment efficacy. The work specifically aimed to counteract the suppressive effects of myeloid-derived suppressor cells (MDSC), shown to be detrimental to T-cell-specific anti-tuberculosis immunity. Cellular co-culture, flow cytometry and multiplex technology were employed to assess two investigational host-directed therapies, namely all-trans retinoic acid (ATRA) and sildenafil. Both investigational therapies were unable to restore MDSC-mediated suppression of T-cell activation, proliferation and cytokine production. In addition, a standardised protocol was developed for the isolation and verification of MDSC from tuberculosis patients' bronchoalveolar lavage fluid and peripheral blood.

Supervisor: Prof N du Plessis
Co-supervisors: Profs G Walzl, A Dorhoi (*external*)

MANYELO, Masilo Charles (Molecular Biology)

Evaluation of host inflammatory and transcriptomic biomarker signatures as tools for the diagnosis of tuberculous meningitis

Tuberculous meningitis, the most severe form of tuberculosis, has high morbidity and mortality in children. This is mainly because of our inability to diagnose the disease early due to limitations in existing tools. This study evaluated new blood and cerebrospinal fluid biomarker-based approaches as tools for the early diagnosis of the disease. It identified novel protein biomarkers that are detectable in cerebrospinal fluid and blood, and novel combinations between genes, which showed strong potential as diagnostic candidates.

Supervisor: Prof N Chegou
Co-supervisors: Profs G Walzl, R Solomons

MATHIAS, Victor (Nursing Science)

Development and validation of healthcare standards and criteria that contribute to the care of residents in homes for the elderly in Tanzania

This study successfully developed and validated healthcare standards and the associated criteria that may contribute to quality care for residents in homes for the elderly in Tanzania. Based on the evidence obtained through this study, government is urged to respond to the plight of the elderly and urgently introduce the validated standards and associated criteria that may give guidance to the provision of safe, quality care and address residents' needs, thereby improving care to residents.

Supervisor: Prof EL Stellenberg

Co-supervisor: Dr M van der Heever

MEIRING, Christina (Molecular Biology)

Investigating genome variation within a South African wild dog (*Lycaon pictus*) population: towards understanding their susceptibility to *Mycobacterium bovis* infection

This study characterised the molecular epidemiology of *Mycobacterium bovis* infection, which causes tuberculosis in South African wild dogs, to determine whether mycobacterial shedding occurs in this species and assessed the level of genomic diversity in the Kruger National Park wild dog population. The findings contribute crucial knowledge on the transmission dynamics and pathogenesis of *M. bovis* in African wild dogs, but also elucidate genome-wide variation in 71 individuals, which is the largest group of wild dogs to have whole-genome sequencing performed. This study provides an important component that supports future conservation strategies.

Supervisor: Prof M Miller

Co-supervisor: Prof M Moller

MHLANGA, Laurette (Epidemiology)

Optimisation And Benchmarking Of Analytical Approaches To Estimation Of Population Level HIV Incidence From Survey Data

This study investigated stable approaches for applying two HIV incidence estimation methods to age/time-structured population survey datasets, namely HIV status and, optionally, recent infection status. To evaluate the methods, a sophisticated simulation platform was created to simulate HIV epidemics and survey datasets that are structured like real population survey data, with the underlying epidemiological rates explicitly known. The study found that it is easy to obtain estimates with practically negligible bias, but sample sizes/sampling density requirements are always considerable. Observations were made on survey design and the inherent challenges faced by attempts to estimate HIV incidence using surveys of reasonable size.

Supervisor: Prof A Welte

Co-supervisor: Dr E Grebe

MOHAMOUD, Gulnaz (Family Medicine)

An evaluation of the quality of service delivery in private primary care facilities in Nairobi, Kenya

This study evaluates the quality of service delivery in a group of private-sector primary care clinics associated with a tertiary hospital in Nairobi, Kenya. Five studies collected data from patients and general practitioners in the key domains of high-quality primary care. First contact accessibility was found to be good, coordination and continuity of care were average, while comprehensiveness and person-centredness were poor. The findings will assist these clinics to improve service delivery, upskill general practitioners and guide the development of family medicine. The study also adapts the primary care assessment tool for the Kenyan context and showcases methods for evaluating primary care service delivery.

Supervisor: Prof RJ Mash

MOSHA, Neema Ramadhani (Epidemiology)

The impact of missing data on estimating HIV/AIDS prevalence and incidence in demographic sentinel survey studies

The aim of this study was to evaluate the impact of missing data on estimating HIV/AIDS prevalence in demographic sentinel surveillance studies. The research consisted of four phases. It showed that despite the availability of methods to adjust for missing data, many surveys still ignore the missingness, and where missingness has been adjusted for, the reporting was below guideline standards. It highlights the need for clear information and increased awareness to allow researchers to make informed decisions on which method to apply and in which situation it works best for the estimates to be more reliable and representative.

Supervisor: Prof R Machezano

Co-supervisors: Profs J Todd (*external*), T Young

MÜLLER-NEDEBOCK, Amica (Human Genetics)

Investigating mitochondrial DNA sequence variation and copy number in individuals of African ancestry living with Parkinson's disease

This study focused on the role of mitochondrial DNA (mtDNA) in the aetiology of Parkinson's disease in individuals of African ancestry. After mitochondrial genome sequencing, it was found that specific variants that are so-called out of place were observed more commonly in Parkinson's disease cases than controls. Furthermore, it was found that the mitochondrial copy number was significantly increased in cases compared to controls. This study makes a considerable contribution to the field and points to nuclear DNA variation being a primary genetic cause resulting in somatic mtDNA changes.

Supervisor: Prof S Bardien

Co-supervisor: Prof F van der Westhuizen (*external*)



NAIDOO, Shalena (Medical Virology)

A Longitudinal Perspective on the Impact of Immune Status on the HIV-1 Latent Reservoir and Neurocognitive Outcomes in Virologically Suppressed Children

This study evaluated the relationship between immune status, the HIV-1 latent reservoir and neurocognitive outcomes in children on continuous suppressive therapy at eight years. HIV-1-infected children showed significantly higher levels of biomarkers associated with generalised chronic inflammation, particularly those associated with innate myeloid cell activation. Of these, IL-18 was shown to correlate significantly with reservoir measures at both baseline and eight years. It was also strongly associated with markers of intestinal barrier damage. The strongest predictors of aberrant immunity were time to initial therapy initiation and to viral suppression. Impaired neurocognitive outcomes could also be predicted by immunological parameters.

Supervisor: Prof RH Glashoff

Co-supervisor: Dr C de Beer

OBASA, Zimvo (Molecular Biology)

***Mycobacterium tuberculosis* persists at the host-pathogen interface**

This study developed and applied tools to study persister *Mycobacterium tuberculosis*, a viable, but non-replicating, population formed under host-associated stress conditions. A fluorescent reporter strain of *M. tuberculosis* was exploited to track and sort host macrophages containing differentially replicating bacteria, followed by RNA-seq to demonstrate distinct phenotypes of these macrophages. Further, a series of experiments established and validated a mouse model for studying *M. tuberculosis* persister formation, fate and physiology. This model will support future work to interrogate the effect of drug treatment and/or vaccination on persister populations; this may have important implications for tuberculosis prevention and treatment.

Supervisor: Prof S Sampson

Co-supervisors: Drs L Smit, J Mouton

OKUGBENI, Naomi (Human Genetics)

Tracking Autophagy progression in *Mycobacterium tuberculosis*-infected macrophages

Autophagy is a cellular process that can degrade intracellular pathogens, including *Mycobacterium tuberculosis* (*Mtb*). While this process has been extensively studied, its temporal dynamics in *Mtb* infection has not been elucidated. In this study, autophagy activity was tracked in *Mtb*-infected cultured macrophages over 72 hours. As a result, a more accurate method of measuring autophagy activity was developed. Furthermore, using a combination of confocal microscopy and CLEM, it was determined that phagosomes engulfing *Mtb* likely originates from mitochondrial material and that cytosolic translocation of *Mtb* happens at around 48 hours of infection. These findings provide novel insights into autophagy progression during *Mtb* infection.

Supervisor: Prof C Kinnear

Co-supervisor: Prof B Loos

PARBHOO, Trisha (Molecular Biology)

Characterising *Mycobacterium tuberculosis* persister populations

This study focused on persister *Mycobacterium tuberculosis*, a viable, but non-replicating, bacterial sub-population formed under stress conditions experienced in the host. Flow cytometry was exploited in combination with fluorescent markers to monitor population-wide, single-cell replication dynamics to characterise *M. tuberculosis* persisters formed during macrophage infection. A key output was the development of a culture-free, flow cytometry-based approach for rapid, accurate enumeration of *M. tuberculosis*, potentially applicable in research and clinical settings. The study further provides new insights into factors influencing *M. tuberculosis* persister formation, which could ultimately aid the design of antibiotics that effectively target persisters, and thereby shorten treatment.

Supervisor: Prof S Sampson

Co-supervisor: Dr J Mouton

PHAHLADIRA, Lebogang (Psychiatry)

The clinical course and outcomes of first-episode psychosis: A study of the acute, medium- and long-term outcomes in a cohort rigorously treated in the early phase of illness

The clinical course of schizophrenia is characterised by recurrent symptoms of psychosis and enduring functional deficits. This series of studies examined the clinical course in individuals with a first episode of schizophrenia who received standardised treatment over two years. The main findings were that assured treatment delivery by means of a long-acting injectable antipsychotic was associated with favourable outcome in terms of symptom remission, functional remission and favourable self-rated quality of life. However, relatively few patients achieved all three components of the recovery criteria simultaneously, and insight impairment persisted despite the generally favourable treatment response.

Supervisor: Prof R Emsley

ROBYN, Aneurin (Physiotherapy)

Return to play in elite rugby players after severe knee injuries – Addressing the knowledge gaps

This research entailed a descriptive cross-sectional study to compare the physical profiles of elite rugby union players and a prospective cohort study to compare the injured participants' profiles at return to play. The findings showed good psychological readiness after a severe knee injury, but injured players' running speed and decision-making time were slower upon return to play compared to controls. A key recommendation of the study is multidisciplinary monitoring for at least six months after a severe knee injury. Artificial intelligence and algorithms may assist in informing complex return-to-play decisions.

Supervisor: Prof Q Louw

Co-supervisor: Prof J Baumeister (*external*)

RAHANYA, Vurayai (Medical Virology)

Analysis of HIV-1 diversity and inflammatory markers in different cell compartments in HIV-associated neurocognitive disorders (HAND)

The aim of the study was to identify viral and immunologic markers for an improved diagnosis of HIV-associated neurocognitive disorders (HAND), particularly among patients infected with HIV-1 subtype C. Key findings included proviral DNA as a predictor of neurocognitive impairment; mutations Lysine at codon 24 (24K), Arginine at codon 29 (29R) in Tat protein and Tyrosine at position 45 (45Y) in the Vpr protein as signatures for cognitive impairment in HIV infection; and novel linkages among RANTES, IP-10, cognitive status and viral load. The identified markers are practical tools for screening and monitoring HAND.

Supervisor: Prof S Engelbrecht

Co-supervisors: Prof RH Glashoff, Dr GB Jacobs (deceased)

SINGH, Shenuka (Clinical and Research Ethics)

Developing online educational modules on the ethical, legal and social issues related to biobanking: A resource for clinicians, researchers and research ethics committees in South Africa

Biobanking is located at the intersection of science, bioethics, the law and public health. For her second PhD, the candidate reviewed current globally available online training courses on the ethical, legal and social issues (ELSI) of biobanking and found this lacking in relevance and affordability for LMICs. She explored stakeholder perspectives on the ELSI of biobanking practice in South Africa and on educational needs via participatory action research. She then developed a short online course on the ELSI of biobanking. The candidate published 3 of her research chapters in peer-reviewed international journals. The remaining 4 chapters are prepared for publication.

Supervisor: Prof K Moodley

Co-supervisor: Prof J Cadigan

SKINSTAD, Deborah Anne (Sport Science)

Transitioning out of the professional player pathway: A grounded theory on the process in South African men's tennis

A constructivist grounded theory methodology was utilised as a process and strategy to generate a theory on transitions within and out of the professional player development pathway. Players, coaches, parents and administrators were interviewed to ensure maximum variation and theoretical saturation. The emergent theory is underpinned by eight categories and four sub-categories. A lack of context about individual experiences during the junior to senior transition (figuratively) confines the South African player to a linear, reductionist and prescriptive approach to development, compounded by the current long-term player development model. The developed theory emphasises the person and amplifies the player voice.

Supervisor: Prof HW Grobbelaar

Co-supervisor: Prof WA Babchuk

SPARKS, Anél (Human Genetics)

De novo assembly of admixed South African genomes and its application to genetic susceptibility to tuberculosis

Genetic susceptibility to complex diseases such as tuberculosis and rare inborn errors of immunity, such as Mendelian susceptibility to mycobacterial disease (MSMD), has been investigated in South Africans. The human reference genome, a public resource that consists of sequencing data from multiple European individuals, had to be used, but this resource is not sufficient for all groups. In this study, a population-specific reference genome was created with the same coordinate system as the gold standard human reference, while using minimal resources. This new reference outperformed the gold standard reference by successfully identifying a candidate variant in a South African individual with MSMD.

Supervisor: Prof M Möller

Co-supervisors: Dr B Glanzmann, Profs C Kinnear, G Tromp, G van der Spuy

VAN DER WALT, Janke (Occupational Therapy)

The development of Hopscotch: an early intervention programme to improve motor skills and academic performance of grade R children in the West Coast of South Africa.

Motor skills are the underlying abilities needed to perform skilled and coordinated actions such as climbing, running and drawing. Although motor skill impairment is associated with poor school performance, many children lack access to therapeutic services to address developmental delays. Based on a sequential mixed-methods design and complex intervention development methods, this study formulated a hopscotch motor skill intervention programme for Grade R children in the West Coast of South Africa. This is a low-resourced area with a high prevalence of motor skill impairment. A planned exploratory randomised controlled trial will determine the effectiveness of the hopscotch programme in future.

Supervisor: Prof N Plastow

Co-supervisor: Prof M Unger

VAN EEDEN, Gerald Eduard (Human Genetics)

Expanding existing tools to aid in the epidemiological study of populations with complex ancestry

There is a substantial difference in the representation of individuals of non-European descent and individuals of European descent in genome-wide association study (GWAS) catalogues. This study addressed this imbalance by supplying a comprehensive framework for the inference and use of recombination maps when studying populations with complex ancestry and touched on important facets of GWAS in the southern African context. This work is of particular relevance to South Africa, as many genetically diverse populations are present in the country.

Supervisor: Prof M Möller

Co-supervisors: Profs G Tromp, G van der Spuy, Dr C Uren



Fakulteit Geneeskunde en Gesondheidswetenskappe Faculty of Medicine and Health Sciences

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Natuurwetenskappe Master of Science

Anderson, Sean Glen (Pharmacology) (*cum laude*)
Berehan, Yebelay (Biostatistics)
Boonzaier, Willem Petrus Engelbrecht (Medical Physics)
Brown, Nicole Karen (Human Genetics) (*cum laude*)
Chetty, Devina (Human Genetics) (*cum laude*)
Chifamba, Leah Vimbainashe (Human Genetics)
Chimbunde, Emmanuel (Biostatistics)
Cook, Emma Nancy (Molecular Biology) (*cum laude*)
Daniels, Luke-John (Anatomy)
De Villiers, Abigail Kate (Epidemiology) (*cum laude*)
Hofmeyr, Jennifer (Molecular Biology)
Hunde, Belachew Melese (Biostatistics)
Jangano, Charmaine Tariro (Molecular Biology) (*cum laude*)
Janke, Camilla (Reproductive Biology) (*cum laude*)
Jansen Van Rensburg, Zune (Human Genetics) (*cum laude*)
Kgokane, Boipelo (Medical Physiology) (*cum laude*)
Kiprono, Hillary Kibet (Biostatistics) (*cum laude*)
Madhombiro, Munyaradzi (Clinical Epidemiology)
Maila, Tumelo (Molecular Biology) (*cum laude*)
Mamo Bazezew, Meseret (Biostatistics)
Mc Allister, Marli (Clinical Epidemiology) (*cum laude*)
McCaffrey, Caitlin (Medical Physiology) (*cum laude*)
Mulenga, Maurice (Cytopathology)
Mwila, Prince Kasongo (Clinical Epidemiology)
Ndong Sima, Carene Anne Alene (Human Genetics) (*cum laude*)
Nolan, Heidi (Medical Physiology)
Nombula, Makabongwe (Biostatistics)
Ntafua, Mulumba (Clinical Epidemiology)
Paarwater, Brandon Antony (Human Genetics) (*cum laude*)
Roomaney, Aqeedah Abbas (Human Genetics) (*cum laude*)
Saal, Car-Lee (Clinical Epidemiology) (*cum laude*)
Scholtz, Denise (Human Genetics)
Swart, Xan (Biostatistics) (*cum laude*)
Van Niekerk, Nadia (Medical Physiology)

Magister in die Natuurwetenskappe in Sportwetenskap Master of Science in Sport Science

Adam, Faatima (*cum laude*)
Blakeway, Sarah Katherine
Davis, Nikita (*cum laude*)
Dube, Sindiso Rangarirai
Louw, Maria Magretha Wilhelmina
Madi, Lwazi Nqa (*cum laude*)
Robertson, Emily Jeanne

Magister in die Geneeskunde Master of Medicine

Alzanad, Fatima (Haematological Pathology)
Bezuidenhout, Morne Cornelius (Chemical Pathology)
Booyesen, Lynn (Paediatrics)
Hendricks, Sade Isabel (Anaesthesiology)
Kerswill, Suzanne (Paediatrics)
Le Roux, Alwyn Petrus (Radiological Diagnosis)
Mathure, Muhammad Wakeel (Paediatrics)
Messiahs, Bradley Clinton (Radiological Diagnosis)
Pretorius, Rupert (Urology)

Rashid, Akram Ghayth Aboulqassim (Internal Medicine)
Scannell, Friederike (Anaesthesiology)
Sebitosi-Van Jaarsveld, Sandra Namugga Nakayizza
(Paediatrics)
Shah, Candice (Paediatrics)
Silolo, Siseko (Urology)
Thomas, Jason Peter (Ophthalmology)
Van der Colff, Fredrich James (Ophthalmology)
Van Rensburg, Roland (Clinical Pharmacology) (*cum laude*)

Magister in Voeding in Publieke Gesondheid Master of Public Health Nutrition

Engelbrecht, Liezel Maryke (Public Health Nutrition) (*cum laude*)
Indongo, Charles Ndeshipanda Halolye (Public Health Nutrition)
Johnson-Dollie, Tasneem (Public Health Nutrition)
Nedzingahe, Vhushavhelo (Public Health Nutrition)

Magister in Menslikerehabilitasiestudies Master of Human Rehabilitation Studies

Kaseke, Tatenda Hazel (Rehabilitation)

Magister in die Wysbegeerte Master of Philosophy

Adu-Amankwaah, Francis (Cancer Science)
Armstrong, Catherine Jane (Infant Mental Health)
Bangani, Onga (Health Systems and Services Research)
Cawe, Busisiwe (Health Professions Education)
De Wet, Daniël Rudolph (Health Professions Education)
Govender, Lynelle (Health Professions Education) (*cum laude*)
Joubert, Lloyd Henry (Cardiology)
Kabini, Shadrack Nyabela (Health Professions Education)
Lucas, Aina Ndinelago Tangi (Health Professions Education)
Magula, Luzuko (Child and Adolescent Psychiatry)
Moses, Carmen Delicia (Health Professions Education)
Moxley, Karis (Health Professions Education) (*cum laude*)
Okhue, Sylvester Omonkhodion (Family Medicine)
Van der Walt, Lizanne (Health Professions Education)
Van Heerden, Elza (Family Medicine) (*cum laude*)
Van Zyl, Maria Elizabeth (Health Professions Education)
Whittaker, Tereza Mary (Infant Mental Health)
Williams, Leone Geraldine (Health Professions Education)

Magister in Arbeidsterapie Master of Occupational Therapy

Michau, Cecile
Tuyishime, Jean Claude
Van Wyk, Megan Barbara

Magister in die Verpleegkunde Master of Nursing

Battle, Donna Glynnis (*cum laude*)
Chencinski, Luna Luise
De Jager, Felicity Louisa
De Lange, Petra Frances Rocher
Haihambo, Teopolina Tunependa
Kamohelo, Tholoana Joyce (*cum laude*)

Kunz, Thalita Yvonne
Landu, Zandile Kolosani
Nagenda, Mapaseka Chabalala
Sagwa, Clemence Munezero
Shaanika, Aletha Nangula
Syster, Sharna Renee
Uazeua, Mercia
Zhangazha, Angelina

**Magister in Terapeutiese Voeding
Master of Therapeutic Nutrition**

Byrne, Jessica Anne (Therapeutic Nutrition) (*cum laude*)
Chin, Cindy Angela (Therapeutic Nutrition) (*cum laude*)
Lipshitz, Melanie (Therapeutic Nutrition) (*cum laude*)

**Magister in Fisioterapie
Master of Physiotherapy**

Cason, Katherine Mary
Conradie, Thandi (*cum laude*)
Du Preez, Emmari (*cum laude*)
Erasmus, Annemie
Janse van Vuuren, Anika Corlé (*cum laude*)
Jansen van Rensburg, Emma Anita (*cum laude*)
Lategan, Roxanne Ava
Lugusa, Gladwell Kayalo (*cum laude*)

**Magister in Spraak-Taalterapie
Master in Speech-Language Therapy**

Le Roux, Carla

**Magister in Verslawingsorg
Master in Addiction Care**

Van den Berg, Gizela

**Honneurs-Baccalaureus in die Natuurwetenskappe
Bachelor of Science Honours**

Robson, Erin Jenny (Physiology (Medical)) (*cum laude*)

**Honneurs-Baccalaureus in die Natuurwetenskappe in
Sportwetenskap
Bachelor of Science Honours in Sport Science**

Apollis, Amy Jade (Performance Sport)
Conradie, Henk (Performance Sport)
Mbedzi, Zwonaka (Performance Sport)

**Nagraadse Diploma in Verslawingsorg
Postgraduate Diploma in Addiction Care**

Carstens, Robyn Jane

**Nagraadse Diploma in Huisartskunde
Postgraduate Diploma in Family Medicine**

Kongolo, Kalantanda Jerome
Leslie, Ifedolapo Oluwakemi
Nsangi, Mubibala
Ukaegbu, Joel Okechi

**Nagraadse Diploma in Beroepsgeneeskunde
Postgraduate Diploma in Occupational Medicine**

Ayuk, Edwin Tambe
Kasiringua, Ngaaruhe Charlotte

**Baccalaureus in die Geneeskunde en Baccalaureus in die
Snykunde
Bachelor of Medicine and Bachelor of Surgery**

Arendse, Carlynne Adriette
Arendse, Christopher Stephen Llewellyn
Israel, Shafeeqah
Moodie-Collison, Bronte Lorraine
Naroth, Reezah Tashrick
Nyawo, Monitar Thulebona
Solomons, Tiffany-Jade Sarah



Fakultät **Faculty**

Ingenieurswese Engineering

5 April 2022 - 17:00

5 April 2022 - 17:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

1. Akademiese prosesie kom die saal binne.
2. Speel van die Nasionale Lied.
3. Formele konstituering deur die Kanselier.
4. Verwelkoming deur die Kanselier.
5. Voorstelling van die eredoktorandus en toekenning van die eregraad deur die Kanselier.
6. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Kanselier.
7. Voorstelling van kandidaat vir die Kanselierstoekenning en oorhandiging van die toekenning deur die Kanselier.
8. Sluiting deur die Kanselier.
9. Akademiese prosesie verlaat die verhoog.

Staan asseblief

Programme

Please stand

Please stand

Please sit

1. Entrance of academic procession into the hall.
2. Playing of the National Anthem.
3. Congregation formally constituted by the Chancellor.
4. Welcome by the Chancellor.
5. Presentation of the candidate for the honorary doctorate and conferment of the degree by the Chancellor.
6. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Chancellor.
7. Introduction of the candidate for the Chancellor's Award and presentation of the award by the Chancellor
8. Closing by the Chancellor.
9. The academic procession leaves the stage.

Please stand

Eregraad | Honorary Doctorate

FAKULTEIT INGENIEURSWESE FACULTY OF ENGINEERING

Die graad Doktor in die Ingenieurswese (DIng), *honoris causa*, aan
The degree Doctor of Engineering (DEng), *honoris causa*, to

Andries (Andy) Calitz

sy bydrae tot die ontwikkeling van die wêreldwye energievoorsieningsektor, en sy visionêre leierskap en merkwaardige prestasies op energiegebied.

Van Asië en Kanada tot Suid-Afrika het Andries (Andy) Calitz 'n kernrol in die wêreldwye energievoorsieningsektor vervul. Dié voormalige hoof van LNG Canada en bekleër van verskeie senior bestuursposte by die energiekorporasies Shell en Eskom is tans die sekretaris-generaal van die Internasionale Gasunie en uitvoerende hoof van FutureEnergy.

Calitz, wat in 1981 sy graad in Elektriese Ingenieurswese aan die Universiteit Stellenbosch behaal het, het sy loopbaan by Eskom begin. Hier vervul hy etlike bestuurs- en uitvoerende rolle op die terrein van elektrisiteitsproduksiebeplanning, -prysbepaling, -sektorherstrukturering en -transmissie. Hy was gedurende sy tyd by Eskom verantwoordelik vir die bedryf van Suid-Afrika se hoëspanningsnetwerk, en leier van die geïntegreerde beplanningsproses vir die land se elektrisiteitsbedryf.

Nadat hy hom in 1996 by Shell aansluit, het hy by internasionale baanbreker-energieprojekte betrokke geraak. Hy het 'n onbesproke geskiedenis in die bestuur van internasionale energiemegaprojekte, veral in die konteks van gesamentlike ondernemings. Hy was al by energiebeleggings ter waarde van \$100 miljard betrokke en het tot bedryfsontwikkeling in lande wêreldwyd bygedra.

Calitz het ook kwalifikasies in die handel, bestuur en sake-administrasie aan die Harvard-bestuurskool, die universiteite van die Witwatersrand en Suid-Afrika sowel as INSEAD verwerf.

his contribution to the development of the global energy supply sector, and his visionary leadership and remarkable achievements in the energy field.

From Asia and Canada to South Africa, Andries (Andy) Calitz has played a prominent role in shaping the global energy supply sector. Currently secretary-general of the International Gas Union and chief executive of FutureEnergy, Calitz used to head up LNG Canada and held various senior executive positions at energy corporations Shell and Eskom.

This Stellenbosch University Electrical Engineering alumnus from the class of 1981 started his career at Eskom, where he fulfilled various managerial and executive roles in electricity production planning, pricing, sector restructuring, and transmission. During his time at Eskom, he was responsible for the operation of South Africa's high-voltage grid and led the integrated planning process for the country's electricity industry.

After joining Shell in 1996, he became involved in ground-breaking international energy projects. He has an impeccable track record of managing international energy mega projects, especially in the context of joint ventures. He has been involved in energy investments to the tune of \$100 billion and contributed to business development in countries across the globe.

Calitz also holds qualifications in commerce, management and business administration from Harvard Business School, the universities of the Witwatersrand and South Africa, as well as INSEAD.



Fakulteit Ingenieurswese | Faculty of Engineering

DOKTORALE KWALIFIKASIES | DOCTORAL QUALIFICATIONS

DOKTOR IN DIE INGENIEURSWESE DOCTOR OF ENGINEERING

BELLO, Fatimatu (Chemical Engineering)

Development of multistep biorefinery schemes for the production of nanocellulose and high value-added bioproducts from mango seed

Management of the detrimental effects of petroleum-based products depends on the efficient utilisation of renewable agro-industrial waste, which could be achieved through sustainable and efficient pre-treatment/conversion processes. In this study, multistep biorefineries are developed and optimised to determine their feasibility for recovering multi-products from mango seed husk and kernel for diverse application, as opposed to the reported single-product schemes that result in inefficient usage of bioresource potential. The effect of the multistep process on nanocellulose production using non-catalysed organic acids is tested and compared to the classical approach. The developed multistep biorefineries are found to show potential for multi-product recovery, including nanocellulose.

Supervisor: Prof AFA Chimphango

Co-supervisor: Prof JF Görgens

BESTER, Coenraad Petrus (Industrial Engineering)

A function-based relevance model for making sense of technological change in the context of a firm

This study addresses the need for well-grounded management tools and methodologies that link the technology opportunities and risks posed by phenomena such as the Fourth Industrial Revolution to a firm's strategy. It proposes a model and supportive methodology – an interpretive lens – that could help the leadership of a firm make sense of technology, and keep up with the ever-increasing rate at which new technologies emerge, in the context of their strategy. The study describes the development of the proposed model, called the function-based relevance model (FRM), from concept to working demonstrator, by applying a text network approach.

Supervisor: Prof CWI Pistorius

Co-supervisor: Prof SS Grobbelaar

CHIHAMBAKWE, Zviemurwi Johnny (Industrial Engineering)

A framework for creating shared value at the base of the pyramid through micro-manufacturing factories

This study develops a framework and management tool to guide cross-sector organisations in creating manufacturing shared value (MSV) in base-of-pyramid (BoP) communities. The MSV framework is based on a capability-building strategy, an implementation process strategy and a growth strategy. The management tool informs implementers on key considerations for the profitable and sustainable creation of MSV in BoP communities. The framework and tool are refined and validated through eight design cycle iterations informed by the design science research methodology. The results of this study contribute to the fulfilment of global sustainable development goals 1, 8 and 9.

Supervisor: Prof SS Grobbelaar

Co-supervisor: Prof S Matope

CLAASEN, Jaleel Joseph (Civil Engineering)

Experimental testing and numerical modelling of a large-scale modular, cellular, structural steel-and-composite sandwich-decking flooring system in fire

According to the Southern African Institute of Steel Construction (SAISC), the current office building market segment in South Africa does not meet public, developer and tenant expectations. Through industry input, the SAISC developed performance criteria for future office building development, as well as a cellular-beam structure (CBS) that meets all performance criteria. This study forms part of a larger research project to quantify the CBS system's fire rating experimentally and numerically. In addition to large-scale standard fire tests, small and medium-sized tests are conducted. Numerical models are then developed and benchmarked using the experimental data.

Supervisor: Prof RS Walls

Co-supervisor: Dr A Cicione

CROUCAMP, Marco (Industrial Engineering)

Evolutionary algorithms for robot path planning, task allocation and collision avoidance in an automated warehouse

This study proposes an evolutionary algorithm framework that can sequence products to be picked or binned in a warehouse, allocate the products to picking robots, and optimise the routing of the robots. The algorithm framework incorporates collision avoidance and multiple objectives. The results show that the framework is able to create and improve feasible real-world solutions to the part sequencing and allocation problem. This study is the first to solve this specific variation of the part sequencing and allocation problem using metaheuristics and evolutionary multi-objective algorithms, given that all collisions must be avoided.

Supervisor: Prof J Grobler

DE WET, Martinus Theunis Steyn (Industrial Engineering)

A multi-methodology system as project management approach in South African banking

The multi-methodology system is proposed as an enhanced approach to information technology project management in South African banking. It incorporates systems thinking principles such as Ashby's law of requisite variety, and adapts Stafford Beer's viable system model for the temporary organisation. Having been presented to leading practitioners in industry, the proposition has been validated as theoretically sound, and the practitioners expect it to be implementable and of value in practice. Furthermore, the research approach developed for this study presents a novel contribution from which future studies of projects and project management can benefit.

Supervisor: Prof CSL Schutte

DU PLESSIS, Clarice (Mechanical Engineering)

Scaling of axial fan noise

The main mechanisms of axial fan noise, namely trailing edge, tip vortex formation and turbulence ingestion noise, are predicted numerically, semi-empirically and analytically. Single-aerofoil theory is used to combine the noise mechanisms so as to represent the noise generated by a fan at various volume flow rates and tip clearances. This prediction is validated by experimental measurements for one fan diameter. The effect of a change in fan diameter on the generated far-field noise is investigated, and compares favourably with an existing fan scaling method and proprietary equations used by cooling system suppliers.

Supervisor: Prof SJ van der Spuy
Co-supervisor: Prof HCR Reuter

FATAAR, Humaira (Civil Engineering)

Fatigue behaviour of steel-fibre-reinforced concrete

Many applications of concrete may experience fatigue loading at some point during their lifespan. However, few researchers consider the fatigue behaviour in the cracked state. In fibre-reinforced concrete (FRC), the fibres are activated only at crack initiation. Prior to this, the FRC composite deforms elastically. This study investigates the fatigue life and failure mechanisms of pre-cracked steel-FRC subjected to fatigue loading. Experiments are conducted at a single fibre and macroscopic level. The pre-crack ranges from 0,6 mm to 2,5 mm, at load levels of 50%, 70% and 85% of the average maximum static load. A fatigue-life prediction approach is developed to forecast the fatigue behaviour.

Supervisor: Prof R Combrinck
Co-supervisor: Prof WP Boshoff (*external*)

HAGEDORN-HANSEN, Devon (Industrial Engineering)

Laser powder bed fusion on cemented tungsten carbide cutting tools

This study develops a unique tungsten carbide-cobalt cemented carbide cutting tool through laser powder bed fusion (L-PBF). The influence of factors encountered during L-PBF and their impact on specific cutting tool properties are studied with the aim of producing a cutting tool that can serve as an alternative to commercially available press-and-sinter-produced tools. Scanning strategy is observed to be the most significant factor. A diagonal raster strategy with an 80-degree alternating rotation produces the best cutting inserts for the specific insert geometry and grade. The developed cutting inserts are comparable to conventional inserts for certain cutting performance indicators.

Supervisor: Prof N Sacks
Co-supervisors: Profs S Matope, OFRA Damm

HUMAN, Carlo (Mechatronic Engineering)

A decision framework for the aggregation of digital twins

The presented framework enables systematic, effective decisions when designing a system of digital twins to represent a complex physical system. The design framework is broadly applicable and enables traceability of design choices. The steps in the framework are needs and constraints analysis, physical system decomposition, services allocation, performance and quality considerations, implementation considerations, and verification and validation. These steps are moulded into six design patterns by focusing on key quality attributes. The design framework and patterns are subsequently demonstrated and validated through three case studies: a heliostat field, a water distribution system and a smart city.

Supervisor: Prof AH Basson
Co-supervisor: Dr K Kruger

HÜSSELMANN, Günther (Industrial Engineering)

Bus route design and frequency setting for public transit systems

The availability of effective public transport systems is becoming an increasingly urgent problem in urban areas worldwide due to rising levels of traffic congestion. This study considers the design of a suite of mathematical models in the form of bi-objective optimisation problems to help bus companies make high-quality decisions in terms of bus transit route design and frequency setting. Solutions to these models enable bus transit operators to select network routes, and frequencies for buses operating along these routes, that would achieve a desirable trade-off between minimising passenger cost and simultaneously reducing operator cost.

Supervisor: Prof JH van Vuuren
Co-supervisor: Prof SJ Andersen



JACKLIN, Dylan Michael (Civil Engineering)

Plant biofiltration for urban stormwater runoff purification in South Africa

Polluted urban stormwater has the potential to harm South Africa's freshwater resources. This study presents a compilation of investigations that promote plant biofiltration as an effective yet sustainable alternative to conventional infrastructure for stormwater quality improvement. This is achieved through the identification of potential phytoremediators via the development of a plant selection tool, and design optimisation focusing on appropriate growth media, plant species and biofilter specifications. Investigations into suitable mathematical models to improve our understanding of plant biofilter complexity and sustainable implementation are also performed.

Supervisor: Dr IC Brink

Co-supervisor: Prof SM Jacobs

JOHNSON, Leanne (Electronic Engineering)

Advances in Pedestal Substrate-Integrated Waveguide filters

Microwave filters protect sensitive radio receivers from out-of-band signals. This study presents a number of improvements to a class of Substrate-Integrated Waveguide microwave filters, include a configuration with positive and negative couplings for optimal frequency and phase performance, a low-loss variant with reduced dielectric for very low-power applications, and a frequency-tunable variant using sets of PIN-diodes for agile receivers. These filters are low-cost, as they can be etched using normal Printed-Circuit-Board techniques, yet offer excellent electrical performance, and are of high interest for mobile communications such as 5G devices, Wi-Fi and GPS.

Supervisor: Prof P Meyer

Co-supervisors: Prof B Potelon (*external*), Dr E Meyer (*external*)

LAMPRECHT, Johannes Hendrik (Chemical Engineering)

Characterisation of liquid distribution and behaviour inside randomly packed columns using electric impedance tomography

A wire-mesh electrical impedance tomography (EIT) system is designed and constructed to visualise and quantify liquid distribution behaviour inside randomly packed columns. The system can be used to characterise random packing, and to quantify the impact of liquid physical properties and packing geometry on the distribution of liquid in the inter-packing voids. It also enables evaluation of the transition between regimes of droplet coalescence and droplet breakup, and the subsequent mechanistic change in liquid holdup. As such, this novel EIT characterisation method is a very useful tool to be applied in both hydrodynamic and kinetic prototyping of random packing material.

Supervisor: Prof AJ Burger

MENDES, Angelo Armando da Silva (Industrial Engineering)

A modelling framework for integrated compressor maintenance scheduling and fuel cost minimisation in natural gas transmission networks

The problem considered in this study involves the integration of maintenance scheduling and fuel cost minimisation in natural gas transmission networks. Previously, these two operational problems were solved separately in the literature. In the context of three case studies, however, it is shown that a combined modelling approach holds considerable benefits over separate modelling maintenance scheduling and fuel cost minimisation. A customised, simulated annealing algorithm is designed for solving the combined model approximately, which algorithm is found to be capable of returning high-quality operational solutions for natural gas transmission networks.

Supervisor: Prof JH van Vuuren

MEYER, Edmund Stanhope (Civil Engineering)

South African building-envelope thermal performance simulation: Parameters and the role of moisture content

This study investigates the role of building envelope design in reducing heating and cooling energy consumption and improving human comfort for commercial and residential buildings. Parametric analysis of the performance of South African Green Star-rated and lowincome buildings is carried out. The results confirm the impact of facade construction material selection. Increased specific heat and density along with reduced conductivity and solar heat gain coefficient reduce the energy consumption of predominantly glazed buildings. Validation analysis of an instrumented lowincome house confirms that hygrothermal consideration is essential for the accurate analysis of lowincome buildings of exposed porous building materials.

Supervisor: Prof GPAG van Zijl

Co-supervisor: Dr WI de Villiers

MEYER, Markus Willem (Civil Engineering)

The characterisation of the dynamic interaction between highway bridges and long, multi-trailer heavy vehicles

Many countries around the world are experiencing an increase in demand for freight transport by road. One solution is to introduce larger heavy vehicles, which are capable of transporting more freight. These vehicles have more trailers and, therefore, are longer than existing heavy-vehicle traffic, causing unique dynamic bridge behaviour during vehicle-bridge interaction. Through the development of a vehicle-bridge interaction model, this study identifies the unique dynamic bridge behaviour induced by these vehicles, producing a framework that quantifies the dynamic loads they induce on highway bridges.

Supervisor: Prof NPJ de Koker

Co-supervisor: Prof R Lenner

MIHIRETU, Gezahegn Teklu (Chemical Engineering)

Advancing lignocellulosic biorefineries through co-production of hemicellulosic biopolymers and bioenergy

A lignocellulosic biorefinery system for the conversion of agro-industrial residues into bioenergy and hemicellulosic biopolymers intended for high-value applications, was developed. Considering the critical role of biomass fractionation to achieve this, two novel pretreatment approaches were experimentally investigated to establish optimal conditions for co-production of xylan biopolymers and bioethanol in a biorefinery setup. Further techno-economic study results revealed that the economic viability of the envisaged biorefinery complex was significantly improved as a result of such co-production scheme, albeit with increased energy requirements. The biorefinery was also shown to have a positive contribution towards mitigating greenhouse gas emissions

Supervisor: Prof JF Görgens

Co-supervisor: Prof AFA Chimphango

MOELICH, Gerrit Marius (Civil Engineering)

Plastic shrinkage cracking and other evaporation-related impairments in 3D-printed and cast concrete

Due to the absence of formwork, 3D-printed concrete is vulnerable to rapid pore water evaporation immediately after extrusion, with plastic shrinkage cracking a potential consequence. This research proposes methods to characterise and estimate on-site evaporation rate, testing protocols, active and passive mitigation measures and a model for plastic shrinkage cracking in 3D-printed concrete. The effect of early-age pore water evaporation on mechanical and durability performance was investigated and an analytical model was proposed for interlayer bond strength based on the amount of surface moisture that evaporates during printing from the interlayer plane.

Supervisor: Prof R Combrinck

MOREMI, Tsietsi John (Industrial Engineering)

An ant colony optimisation approach to scheduling truck-and-drone delivery systems

This study proposes various novel truck-and-drone last-mile delivery system optimisation problems. A delivery drone is launched from a purpose-built truck, completes an additional delivery while the truck is en route between two customer locations, and intercepts the truck after completing the additional delivery. An ant colony system/k-means clustering approach is developed and tested on drone-scheduling benchmark problems against optimal solutions, other population-based metaheuristics and a truck-only delivery system. The truck-and-drone delivery system is shown to have a significant positive impact on delivery time performance.

Supervisor: Prof J Grobler

Co-supervisor: Prof PM Kaminsky (*external*)

MOSSISSA, Amsalu Tolessa (Chemical Engineering)

Development of a techno-economic analysis tool for anaerobic digestion in smallholder farming systems in the context of the water–energy–food nexus

Anaerobic digestion (AD) is a well-established technology for bioenergy production, but uptake is low among African smallholder farmers. This study evaluates the potential of agricultural residue feedstock in smallholder farming systems in South Africa and Madagascar. A method for multicriteria technology selection is developed, as well as a novel approach to optimise a co-digestion strategy for agricultural residues using probabilistic simulation. In addition, a techno-economic assessment tool is compiled that is explicitly centred in the water–energy–food framework to evaluate AD. Results demonstrate that the implementation of smallholder-based AD is feasible, with a financial and economic rate of return of 14% and 67% respectively.

Supervisor: Prof NJ Goosen

Co-supervisor: Prof TM Louw

NEL, Nicole (Civil Engineering)

An investigation into untreated greywater as a supplementary household water source to augment potable municipal supply, with consideration of the associated risks

There is a critical gap when it comes to understanding the uptake of untreated greywater in fully serviced suburban areas, and the trade-off between the risks (quality) and potential water savings (quantity). The main aim of this study is to gain a better understanding of this gap. It is found that household water savings associated with the manual collection of untreated greywater is <10%, which is markedly less than savings achieved from having multiple household water sources (69%). This, coupled with variable quality and the relatively high risk to public health, the environment and infrastructure, provides insight into the quality–quantity nexus.

Supervisor: Dr IC Brink

Co-supervisor: Prof HE Jacobs

OLUBAMIWA, Oreoluwa Ifeoluwa (Electrical Engineering)

Design development of brushless doubly fed machines

Brushless doubly fed machines (BDFMs) are reliable alternatives to doubly fed induction generators. In this study, different aspects of the design of BDFMs are investigated. A design evaluation procedure is proposed for grid compliance considerations at the design stage of BDFMs. A coupled-circuit model is developed to aid rapid BDFM rotor topology design, and a complete BDFM design and optimisation process is proposed and evaluated. With the emphasis on improving the relative power density and efficiency of BDFMs, suitable pole-pair combinations are identified. In addition, practical ranges for the BDFM electric and magnetic loadings are determined across different power ratings.

Supervisor: Dr N Gule

Co-supervisor: Prof MJ Kamper



PUNT, Tiaan (Chemical Engineering)

Development of an environmentally friendly and sustainable hydrometallurgical process for lithium-ion battery recycling

Lithium-ion batteries are used extensively in consumer electronics and electric vehicles, and contain the strategically sensitive metals lithium and cobalt. Furthermore, the disposal of end-of-life batteries on landfill sites poses an environmental hazard. Therefore, recycling lithium-ion batteries is critically important in moving to a more sustainable economy. This study develops an environmentally friendly hydrometallurgical process using citric-acid leach solutions to recover manganese, lithium, cobalt and nickel from end-of-life batteries. The optimised, novel process uses solvent extraction and precipitation, and is able to recover the metals as separate product solutions with high efficiency and limited environmental impact.

Supervisor: Prof G Akdogan

Co-supervisors: Prof SM Bradshaw, Mr AP van Wyk

ROSSOUW, Arnoux (Electrical Engineering)

Planar magnetron sputtering of Ti and TiO₂ for polyethylene-terephthalate track-etched membrane surface modification

This study covers the research, development and fabrication of hybrid polymeric membranes, lab-to-fab, for use in advanced technologies such as separation, biotechnology and microelectronics. Through a combination of fundamental and applied research, advancements in developing and synthesising hybrid membranes based on metal-polymeric and ceramic-metal-polymeric track-etched membranes are consolidated. The combination of porous, organic films and inorganic layers to develop hybrid membranes is achieved by the surface modification of porous polyester membranes using large-scale, roll-to-roll magnetron sputtering of Ti and TiO₂. Planar roll-to-roll magnetron sputtering on top of polyethylene-terephthalate track-etched membranes has never been done before.

Supervisor: Prof WJ Perold

Co-supervisor: Prof AN Nachaev (*external*)

SMIT, Willem Andries (Electronic Engineering)

Mobile processors for scientific use: A critical analysis of the impact of design trends on performance and energy usage in scientific applications

The technical and market challenges of the past decade or so have resulted in a strong emphasis on the development of energy-efficient multicore central processing units (CPUs). This research sets out to measure the real effect of these developments on the performance and energy usage of the devices we use every day. The focus is on scientific applications, and particularly how processors intended for mobile devices compare to those intended for desktop devices in the scientific environment. The results show that successive generations of desktop devices are slower, while energy efficiency trends downward across all devices.

Supervisor: Prof JA du Preez

SMITH, Sonja Almi Milé (Chemical Engineering)

Improving the description of quadrupolar molecules and their mixtures in the SAFT-VR Mie framework

CO₂-containing mixtures, which are important for many industrial processes, are complicated by quadrupolarity and criticality. Traditional equations of state do not take these characteristics into account and, therefore, are unable to describe CO₂-containing mixtures accurately. The statistical associating fluid theory with variable-range Mie-potential (SAFT-VR Mie) is arguably the most advanced SAFT variant. This study extends SAFT-VR Mie with a quadrupolar term to account for quadrupolar interactions. The model is further treated with renormalisation corrections to improve description of the critical region. In doing so, excellent descriptions of mixture-phase boundaries are obtained in a predictive manner.

Supervisor: Prof G Akdogan

Co-supervisors: Prof SM Bradshaw, Mr AP van Wyk

STREICHER, Simon Frederik (Electronic Engineering)

Incremental inference on higher-order probabilistic graphical models applied to constraint satisfaction problems

Probabilistic graphical models (PGMs) are used to solve complex probabilistic relationships. However, the PGM structures primarily employed in practice are suboptimal. Therefore, this study presents three contributions to PGM literature. The first is a comparison between factor graphs and cluster graphs on graph-colouring problems such as Sudokus, indicating a significant advantage for preferring cluster graphs. The second is an application of cluster graphs to a practical problem in cartography: land cover classification boosting. The third is a PGM formulation for constraint satisfaction problems, and an algorithm called purge-and-merge to solve such problems too complex for traditional PGMs.

Supervisor: Prof JA du Preez

VAN STADEN, Chantelle Yvonne (Electrical Engineering)

Geospatial capacity allocation framework of wind and solar photovoltaic renewable generation for optimal grid support

A robust and flexible optimisation framework is developed for medium to long-term geospatial capacity allocation of wind and solar resources. The framework adopts a probabilistic risk-based approach that minimises the frequency of events where high residual load values require ancillary services interventions. The renewable energy resources are categorised into geospatial clusters in terms of the statistical properties of the spatiotemporal wind and solar power profiles for a given set of daily and seasonal time-of-use periods. The framework incorporates flexible minimum and maximum allocation constraints that allow application to real-world scenarios where capacity allocation constraints apply at a regional level.

Supervisor: Prof HJ Vermeulen

VAN WYK, Marnus (Industrial Engineering)

Integrated feedstock optimisation for multiproduct polymer production

A chemical complex can have multiple value chains, some of which may span across geographic locations. Decisions regarding the distribution of feedstock to different production units are required to maximise profit and minimise energy consumption in the value chain. Unexpected events can cause an imbalanced value chain, which requires timely decision-making to mitigate further adverse consequences. In this study, an integrated decision support system is developed for hourly and daily decision-making, incorporating single and bi-objective metaheuristic algorithms to generate near-optimal production schedules for the distribution of feedstock in a complex value chain.

Supervisor: Prof JF Bekker

VON LEIPZIG, Tanja (Industrial Engineering)

Adaptive games for learner and systems (bidirectional) learning

Dynamic personalisation of learning trajectories that integrate different perspectives and variable scenarios is a purposeful and viable way to improve the quality, effectiveness and efficiency of education and training. Aggregating learner behaviours and results in such trajectories enables contextualised adaptation of the learning material and experience by means of bidirectional learning. In this study, an architecture is developed for creating parameterised, adaptive and bidirectional learning games for specific scenarios in a faster, more effective and more efficient manner. By incorporating stakeholders as co-designers, and enabling bidirectional learning, the architecture provides learning and improvement opportunities for various stakeholders.

Supervisor: Prof CSL Schutte

Co-supervisors: Profs VP Hummel, D Lutters



Fakulteit Ingenieurswese | Faculty of Engineering

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in Ingenieurswetenskappe in Biomediese Ingenieurswese Master in Engineering Science in Biomedical Engineering

Du Plessis, Stefan (Biomedical Engineering) (*cum laude*)
Rabikoosun, Sagal (Biomedical Engineering)

Magister in die Ingenieurswese Master of Engineering

Abdulla, Mubeen (Industrial Engineering) (*cum laude*)
Ackerman, Riaan (Civil Engineering)
Agbetsiafa, Insight Nyenya Aku (Electronic Engineering)
Allen, Tamara Candice (Mechatronic Engineering)
Appollis, Jody (Civil Engineering)
Asimwe, Martha Mukama (Engineering Management) (*cum laude*)
Beukes, Penny (Civil Engineering)
Bosman, Eduard (Mechanical Engineering) (*cum laude*)
Botha, Ayden Dennis (Civil Engineering) (*cum laude*)
Botha, Christiaan Stephanus (Civil Engineering) (*cum laude*)
Botha, Daniel Johannes (Industrial Engineering)
Botha, Stefan (Electrical Engineering) (*cum laude*)
Bras, Edward Hendrik (Chemical Engineering) (*cum laude*)
Brown, Ian (Civil Engineering) (*cum laude*)
Bunn, Nicholas Raymond (Mechatronic Engineering)
Burger, André Jacques (Industrial Engineering) (*cum laude*)
Carstens, Rain Bailey (Civil Engineering)
Cillie, Dewald Jacques (Industrial Engineering) (*cum laude*)
Corlett, Bradley Michael (Industrial Engineering)
Crockart, Ivan Calitz (Mechatronic Engineering)
Dantu, Ryan Keagan (Chemical Engineering)
De Beer, Samuel Heinrich (Industrial Engineering)
De Klerk, Andre (Mechanical Engineering) (*cum laude*)
Deacon, Quintus (Engineering Management) (*cum laude*)
Du Plessis, Susanna Hendrina (Chemical Engineering)
Duvenhage, Hein-Pierre (Civil Engineering) (*cum laude*)
Elliott, Hector (Civil Engineering)
Featherston, Nicholas Rudyard (Civil Engineering)
Fenner, Chaz Courtney (Mechanical Engineering) (*cum laude*)
Ferreira, Fabian Ethan (Chemical Engineering) (*cum laude*)
Fortuin, Devlin David (Civil Engineering)
Gerber, Daymen (Civil Engineering)
Gondwe, Bob (Civil Engineering)
Gous, Michelle Danille (Civil Engineering) (*cum laude*)
Grobler, Johannes Hermanus (Civil Engineering)
Heath, Reynard Johan (Mechatronic Engineering)
Hershaw, James Robert (Electronic Engineering) (*cum laude*)
Hollander, Liza (Civil Engineering) (*cum laude*)
Homan, Dewald (Electronic Engineering) (*cum laude*)
Hunter, Jonathan Douglas (Civil Engineering)
Hutton, Tainton (Electrical Engineering) (*cum laude*)
Jacobs, Pierre Malan (Engineering Management)
Jeza, Sabelo Acceptance (Chemical Engineering)
Keyser, Matthew Paul (Mechanical Engineering) (*cum laude*)
Khoza, Tenele Prosperity (Civil Engineering)
Kirstein, Daniel Petrus (Mechanical Engineering)
Koch, Daniel Gerhardus (Civil Engineering)
Kotzé, Jan Christiaan (Civil Engineering)
Kramer, DP (Mechatronic Engineering) (*cum laude*)
Kriek, Christi Gepke (Chemical Engineering) (*cum laude*)

Kritzinger, Daniel Strauss (Mechatronic Engineering) (*cum laude*)
Laker, Chris James (Mineral Processing)
Landman, Rossouw Johan Frederick (Industrial Engineering) (*cum laude*)
Laubscher, Jennifer Mignonne (Industrial Engineering) (*cum laude*)
Le Roux, Jana Hendrina (Civil Engineering) (*cum laude*)
Lebea, Itumeleng Lionel (Civil Engineering)
Lingenfelder, Tanya (Civil Engineering) (*cum laude*)
Lombard, Schalk Jacobus (Mechatronic Engineering)
Loser, Sheldon Brian (Electrical Engineering) (*cum laude*)
Louw, Jakobus Murray (Electronic Engineering) (*cum laude*)
Louw, Michele (Mechatronic Engineering)
Maarsingh, Berno (Industrial Engineering) (*cum laude*)
Madyibi, Salizwa Siliziwe (Chemical Engineering)
Malan, Christian (Electronic Engineering) (*cum laude*)
Malan, Jean De'M (Civil Engineering) (*cum laude*)
Malan, Phillip Christian (Industrial Engineering) (*cum laude*)
Matutala, Ifodji Gloire (Civil Engineering) (*cum laude*)
Mboweni, Xivoningo Amon (Civil Engineering)
Meli, Menelaos (Electronic Engineering)
Merbold, Ghiete (Civil Engineering) (*cum laude*)
Meyer, Jacques Muller (Electronic Engineering) (*cum laude*)
Meyer, Karin (Civil Engineering) (*cum laude*)
Mguni, Nontshumayelo Millicent (Electronic Engineering)
Migale, Gilbert Harvey (Engineering Management) (*cum laude*)
Mnisi, Lucky Authur (Civil Engineering)
Mohlotsane, Topollo (Electrical Engineering)
Molemane, Carol (Civil Engineering)
Mong, Danica (Civil Engineering) (*cum laude*)
Mtsi, Thabani Sanda (Civil Engineering) (*cum laude*)
Murugan, Kalayvaani (Mechanical Engineering)
Musarurwa, Dadiso Florence (Electrical Engineering)
Mutede, Tawanda Blessing (Civil Engineering)
Naicker, Devon (Civil Engineering)
Naicker, Semai (Electronic Engineering) (*cum laude*)
Nell, Nicholas Jakobus (Electronic Engineering)
Ngiba, Qiniso Theo-Maxwell (Chemical Engineering) (*cum laude*)
Nkabinde, Dumisani Moses (Civil Engineering)
Nkwocha, Chijioke Leonard (Mechanical Engineering)
Nwagboso, Oluchi Esther (Chemical Engineering)
Obondo, Tobias Omondi (Chemical Engineering)
Oelofse, Andries Nicolaas (Mechanical Engineering) (*cum laude*)
Oosthuizen, Christiaan Rudolph (Industrial Engineering) (*cum laude*)
Oosthuizen, Lelani (Industrial Engineering) (*cum laude*)
Oosthuysen, Christian (Civil Engineering) (*cum laude*)
Pasipamire, Kudakwashe (Civil Engineering)
Paskert, Lukas (Industrial Engineering)
Pferdekamper, Karl-Heinz (Mechatronic Engineering) (*cum laude*)
Pretorius, Dean (Electronic Engineering) (*cum laude*)
Pretorius, Schalk (Electronic Engineering) (*cum laude*)
Qacha, Bohlajana (Civil Engineering) (*cum laude*)
Ramsay, Gareth Allan (Mechanical Engineering) (*cum laude*)
Rautenbach, Eric (Industrial Engineering) (*cum laude*)

Redelinghuys, Louw Gysbert (Mechanical Engineering) (*cum laude*)
 Rheeder, Amy (Chemical Engineering)
 Rohrbeck, Alicia (Civil Engineering) (*cum laude*)
 Rolfe, Devon Lee (Electronic Engineering)
 Rust, Johannes Petrus (Civil Engineering) (*cum laude*)
 Sander, Zara Rose (Civil Engineering)
 Schleich, Stella Andrea Julia (Electronic Engineering) (*cum laude*)
 Schultz, Sebastian Kent (Chemical Engineering)
 Simonis, Judene (Industrial Engineering) (*cum laude*)
 Smit, Johan Du Preez (Mechatronic Engineering) (*cum laude*)
 Smith, Cameron Grant (Industrial Engineering) (*cum laude*)
 Stander, Adam Johannes (Chemical Engineering) (*cum laude*)
 Stap, Tyron Ian (Civil Engineering)
 Stergianos, Theo John (Civil Engineering)
 Strydom, Philippus Theunis (Electronic Engineering)
 Sukhnandan, Jurad (Civil Engineering)
 Trankle, Nicholas Albert (Industrial Engineering) (*cum laude*)
 Tutt, Nicholas Jordan (Mechanical Engineering)
 Van Aswegen, Ben Collett (Electrical Engineering)
 Van Biljoen, Morne Mark (Mechanical Engineering) (*cum laude*)
 Van der Berg, David John (Chemical Engineering)
 Van der Merwe, Roelof Du Toit (Chemical Engineering)
 Van der Spuy, Herline (Civil Engineering)
 Van der Watt, Gerdus (Civil Engineering) (*cum laude*)
 Van der Watt, Liezl Carien (Chemical Engineering)
 Van Dongen, Caroline Loraine Erica (Electrical Engineering)
 Van Heerden, Ane (Industrial Engineering) (*cum laude*)
 Van Niekerk, Chris (Industrial Engineering) (*cum laude*)
 Van Niekerk, Tyron (Mechanical Engineering)
 Van Rooyen, Juanita Claudia (Engineering Management) (*cum laude*)
 Van Schalkwyk, Ané (Industrial Engineering) (*cum laude*)
 Van Tonder, Ruan Henry (Electronic Engineering) (*cum laude*)
 Van Wageningen, Roelof Pienaar (Industrial Engineering)
 Van Zyl, Francois Johan (Industrial Engineering) (*cum laude*)
 Waller, Robert James (Electronic Engineering)
 Wasserman, Alexander (Mechatronic Engineering)
 Waters, Daniel Terry (Mechanical Engineering)
 Wekenborg, Cristine Leonie (Civil Engineering) (*cum laude*)
 Wentzel, Louis Frans Jacobus (Chemical Engineering) (*cum laude*)
 Whitehead, Marisse Anchen (Civil Engineering)
 Wolmarans, Jacques (Electronic Engineering) (*cum laude*)
 Xavier, Ria Mary Ann (Electrical Engineering) (*cum laude*)

Nagraadse Diploma in die Ingenieurswese Postgraduate Diploma in Engineering

Alves, Sergio David Calaca
 Guse, Wian (*cum laude*)
 Hendriks, Johannes Jurgens (*cum laude*)
 Herbert, David Mark
 Mateyisi, Lemohang
 Moolman, Adriaan Joubert
 Ndapona, Izaias Lot
 Ntimane, Lorence Mngoni
 Simali, Thembiso Charlotte
 Swart, William James

Baccalaureus in die Ingenieurswese Bachelor of Engineering

Africa, Zaid Seth Mason (Civil)
 Arries, Jared Tyrell (Civil)
 Bakker, Hans-Peter (Mechanical)
 Basson, Albertus Johannes (Industrial)
 Bester, Adrian Le Seur (Mechanical)
 Bhawan, Priyan (Mechanical)

Bhayat, Moegamat Tashriq (Civil)
 Blignaut, Henri (Civil)
 Blom, Heinrich Tobias (Electrical and Electronic)
 Botha, Dewald Neil (Mechanical)
 Bowmaker, Alan Philip Macgowan (Civil)
 Britz, Ryan Lind (Electrical and Electronic)
 Buys, Matthew (Electrical and Electronic)
 Chibage, Emmanuel Tinotenda (Civil)
 Crous, Ludwig Ankiewicz (Mechanical)
 Daniels, Alain David (Chemical)
 Davies, Anna Penelope (Electrical and Electronic)
 De Waal, Andri (Mechatronics)
 Di Leva, Jason Antonio (Electrical and Electronic)
 Dicey, Andrew Gordon Peter (Industrial)
 Du Plooy, Pauli (Mechanical)
 Dyani, Bulumko Phumelela (Civil)
 Frost, Megan (Electrical and Electronic)
 Galloway, Ryan Matthew (Mechanical)
 Gouws, Jean-Jacques (Electrical and Electronic)
 Greyvenstein, Frederik Willem (Mechatronics)
 Grobbelaar, Hendrik Jacobus (Civil)
 Hawkins, Thomas (Industrial)
 Hendricks, Lee Jarod (Civil)
 Henri, Paul Caleb (Mechatronics)
 Heynes, Callen Foster (Civil)
 Hoffman, Ankia (Industrial)
 James, George Louis (Civil)
 Jansen Van Rensburg, Johannes (Civil)
 Joerning, Andrew (Industrial)
 Johnston, Henry Bruce Ian (Mechatronics)
 Jolly, Christian Nicholas (Mechanical)
 Kruger, Ivan (Mechanical)
 Le Roux, Michael John (Civil)
 Lekholoane, Rorisang Raymond (Mechatronics)
 Luyt, Jarryd (Industrial)
 Mabitsele, Lebogang (Industrial)
 Mahange, Xintomane Kathleen (Electrical and Electronic)
 Malemane, Tsepile Marian (Electrical and Electronic)
 Malherbe, Stefanus Gideon (Electrical and Electronic)
 Mampana, Richard Leseja (Chemical)
 Maree, Maryn (Industrial)
 McKernan, Timothy Paul (Industrial)
 Meshilinie, Leland Chad (Chemical)
 Mfana, Zona (Mechanical)
 Mintoor, Ishaq (Electrical and Electronic)
 Mogase, Thato Karabo (Civil)
 Mohlaba, Mjekejwa Darshan (Mechanical)
 Moopen, Sorvanya (Industrial)
 Mouton, Arno (Civil)
 Moyo, Nokuthaba Thelma (Mechanical)
 Mudau, Thama Gerald (Electrical and Electronic)
 Nel, Danielle (Chemical)
 Nhlaluko, Baloyi Victhel (Civil)
 Nyamaka, Panashe Raphael (Chemical)
 Otter, Matthew Alexander (Civil)
 Pitjo, Nkopodi Isaac (Electrical and Electronic)
 Potgieter, Carl Jacobus (Civil)
 Quarmbly, James Andrew (Mechatronics)
 Randeree, Muhammad Ibraheem (Mechanical)
 Reddy, Ranen (Mechanical)
 Rohde, Gustav Michiel (Civil)
 Roux, Dirk (Industrial)
 Scheepers, Dehan Coenraad (Industrial)
 Schwabe, Anthony Maximillian (Mechanical)
 Scorgie, Riaan James (Civil)
 Singh, Vrishti (Mechatronics)
 Slabbert, Matthew Eldon Barry (Mechatronics)
 Strauss, Maria Rene (Industrial)
 Strydom, Pieter Jacobus (Mechanical)
 Swanepoel, Michaela Gabriella (Industrial)



Thielen, Jochanan (Mechanical)
Van As, Dante Myburgh (Civil)
Van Coller, Christiaan Lodewyk Wentzel (Industrial)
Van der Merwe, Arno (Civil)
Van der Merwe, Ruben (Mechanical)
Van Eck, Hendrik Johannes (Civil)
Van Elst, Luke Hendricus Petrus (Mechatronics)
Van Heerden, Liaan (Electrical and Electronic)
Van Staden, Lawrence John (Electrical and Electronic)
Van Wyk, Janie (Industrial)
Van Wyk, Ryno (Civil)
Vermaak, Bernard Hardy (Mechatronics)
Vermaak, Monique (Civil)
Winn, Wesley Stuart (Civil)
Winter, Erik Thomas (Civil)
Yates, Ryan Arthur (Civil)

Kanselierstoekenning | Chancellor's Award

FAKULTEIT INGENIEURSWESE FACULTY OF ENGINEERING

Jan Wium

Na 'n roemryke loopbaan in die bedryf het prof Jan Wium hom in 2003 by die Departement Siviele Ingenieurswese aangesluit. As bekleër van die leerstoel in konstruksie-ingenieurswese en bestuur, bied hy jaarliks die program in konstruksiebestuur vir toekomstige leiers van die boubedryf aan, en het hy al as studieleier vir 80 nagraadse studente opgetree en vele artikels in impakryke vaktydskrifte gepubliseer. Sy insig en kalmte het hom 'n gewaardeerde voormalige voorsitter van die Departement Siviele Ingenieurswese en lid van die Sentrale Dissiplinêre Komitee van die Universiteit Stellenbosch gemaak. Hy is 'n gerespekteerde kollega met 'n beduidende en blywende impak op die Fakulteit Ingenieurswese en die siviele ingenieursberoep.

After an illustrious career in industry, Prof Jan Wium joined the Department of Civil Engineering in 2003. As incumbent of the chair in construction engineering and management, he presents the annual construction management programme to future leaders of the construction industry, and has graduated 80 postgraduate students and published multiple articles in high-impact journals. His insight and calm demeanour made him a valued former chairperson of the Department of Civil Engineering and member of the Central Disciplinary Committee of Stellenbosch University. He is a respected colleague who has made a significant and lasting impact on the Faculty of Engineering and the civil engineering profession.



Fakulteit Faculty

Natuurwetenskappe

Science

6 April 2022 - 09:00

6 April 2022 - 09:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

Staan asseblief

1. Akademiese prosesie kom die saal binne.
2. Speel van die Nasionale Lied.
3. Formele konstituering deur die Kanselier.
4. Verwelkoming deur die Kanselier.
5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Kanselier.
6. Sluiting deur die Kanselier.
7. Akademiese prosesie verlaat die verhoog.

Programme

Please stand

Please stand

Please sit

Please stand

1. Entrance of academic procession into the hall.
2. Playing of the National Anthem.
3. Congregation formally constituted by the Chancellor.
4. Welcome by the Chancellor.
5. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Chancellor.
6. Closing by the Chancellor.
7. The academic procession leaves the stage.

DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

AKERELE, Omolara (Chemistry)

Computational and experimental investigation of factors affecting the quality of multi-component crystals

Growing good-quality crystals is vital for crystal structure analysis and for many applications; however, there has been little research on the role that the nature of the chemical species being crystallised plays in this process. Common wisdom that ionic components produce better crystals than neutral constituents was found to be untrue for a series of substituted benzoic acid and pyridine compounds that formed either salts or cocrystals. Instead, a variety of factors affected the crystal quality, including the formation of intermolecular interactions with the surrounding molecules, where the parameters differed for salts and co-crystals.

Supervisor: Prof C Esterhuysen

Co-supervisor: Prof DA Haynes

AZAM, James Mba (Applied Mathematics)

Modelling outbreak response intervention strategies for decision making

A systematic review of the outbreak response modelling literature focused on vaccine-preventable diseases of humans found that the composition of teams that conducted the work (academic, non-academic or mixed) affects the nature of the modelling conducted. A combined operational-epidemiological model of measles outbreak response vaccination in hard-to-reach populations showed that the use of the measles vaccine outside the cold chain could decrease response time and substantially reduce the number of cases. Strategies were identified to reduce the impact of new variants on case numbers and the size of the epidemic peak, taking into account the level of risk tolerated by decision-makers.

Supervisor: Prof JRC Pulliam

Co-supervisor: Prof M Ferrari

BEZUIDENHOUT, Jandr  Andries (Physiological Sciences)

Hypercoagulation and the structural properties of plasma proteins in Rheumatoid Arthritis

The poorly understood mechanisms responsible for the adverse risk of thrombosis-related complications in individuals with rheumatoid arthritis were considered with a specific focus on autoimmunity-related influences. Analyses of haemostatic function, vascular inflammatory profile, fibrin clot structure, posttranslational modification, protein secondary structure and fibrin aggregation properties were performed to elucidate whether any adverse alterations existed in rheumatoid arthritis patients compared to healthy counterparts. These investigations revealed that fibrin deposition and biomechanical properties differ from what is typically expected within the context of inflammatory disease, where hyperactivated coagulation is offset by compromised clot stability and therefore presents a serious risk for thromboembolism.

Supervisor: Prof E Pretorius

BOOYSEN, Elzaan (Microbiology)

Profiling of the secondary metabolites produced by *Xenorhabdus khoisanae* and characterisation of two novel antilisterial peptides, xenopep and rhabdin

Xenorhabdus khoisanae J194, mutually associated with the nematode *Steinernema jeffreyense*, produced non-ribosomal PAX (peptide-antimicrobial-*Xenorhabdus*) peptides xenocoumacins and xenoamicins. Two novel non-ribosomal peptides were identified and named xenopep and rhabdin. Xenopep has a narrow spectrum of activity and inhibited the growth of *Listeria monocytogenes* and *Staphylococcus epidermidis*. Rhabdin is active against a broad range of pathogens. The two peptides contain non-proteogenic amino acids, fatty acid and polyketide chains, rendering them resistant to proteinases. They share similar amphipathic characteristics and form pores in the cell membrane of *L. monocytogenes* within minutes. These peptides may be developed into new-generation antibiotics. Methods to maximise production were developed.

Supervisor: Prof LMT Dicks

Co-supervisor: Prof M Rautenbach

CZACHUR, Molly Victoria (Zoology)

Using environmental DNA metabarcoding to reveal fish biodiversity in marine ecosystems of South Africa

Environmental DNA is 'free' DNA shed by organisms into their surroundings, providing a snapshot of the diversity of species in an area. Utilising next-generation sequencing technology and an eDNA metabarcoding approach, it was possible to characterise the vast majority of coastal fish species in South Africa. Fish communities differed between habitat types, with more fish species detected in sub-tropical and tropical areas compared to cool-temperate regions, reflecting known patterns of fish distributions. Environmental DNA approaches have the power to revolutionise biodiversity monitoring, crucial to detecting impacts driven by climate change and anthropogenic pressures in the dynamic South African coastal ecosystem.

Supervisor: Prof S von der Heyden

Co-supervisors: Prof S Creer, Dr M Seymour



DREYER, Rudolf Petrus Gerhardus (Polymer Science)

RAFT Polymerization as a Scaffold for the Synthesis of SNAP-tag Labels

Precision medicine is strongly centred around the utilisation of cell membrane-bound epitopes that can be selectively addressed for diagnostic and therapeutic purposes. To direct relevant compounds to a specific location, SNAP-tag technology is increasingly used for the synthesis of antibody conjugates. The benzylguanine moiety that is essential for SNAP-tag was introduced in a RAFT agent that was subsequently used for the synthesis of benzylguanine-labelled polymers. Those polymers were successfully conjugated with a SNAP-tag fusion protein as proven by SDS-PAGE with fluorescence detection. The insights gained will expand the utilisation of SNAP-tag technology.

Supervisor: Prof L Klumperman

Co-supervisor: Dr R Pfkwa

DU PLESSIS, Manisha (Physiological Sciences)

Molecular regulation of autophagy and metastasis in breast cancer: New insights into the role of Serum amyloid A

Serum amyloid A (SAA) plays an important role during the initiation, progression and metastasis of various cancer types; however, the exact molecular mechanisms remain unclear. This study reports that SAA overexpression regulates signalling pathway activation, inhibits autophagy and promotes cell proliferation and metastasis in breast cancer cells, while the systemic knock-out of SAA1/2 is characterised by elevated tumour autophagy, increased tumour cell survival and inhibition of metastasis. Furthermore, SAA has cell-type specific effects when comparing non-malignant and cancer cells. This study contributes significantly to a better understanding of the role of SAA in breast cancer.

Supervisor: Prof A-M Engelbrecht

Co-supervisor: Prof WJM de Villiers

FOURIE, Carla (Physiological Sciences)

The role of serum amyloid A in NLRP3 inflammasome activation in breast and colon cancer

Serum amyloid A (SAA), an acute-phase protein, can bind to receptors on several cell types within the tumour microenvironment to activate the NLRP3 inflammasome, which stimulates the production of proinflammatory cytokines and promotes tumourigenesis. Three *in vivo* mouse models were investigated. In the dextran sulphate sodium-induced colitis model, SAA functions independently of the NLRP3 inflammasome to suppress pro-inflammatory cytokine secretion by activating the mitogen-activated protein kinase, p38. However, in the colitis-associated cancer and triple negative breast cancer models, SAA promotes a pro-inflammatory environment by upregulating the secretion of interleukin-1 β through NLRP3 inflammasome activation. The tumour-induced systemic environment therefore acts as a critical regulator of cancer progression and metastasis.

Supervisor: Prof A-M Engelbrecht

Co-supervisor: Prof WJM de Villiers

GREEN, Kathleen Alice (Mathematics)

Computational and analytical methods for constructing a multilevel model for human glucose metabolism

A mathematical model for glucose metabolism in humans was constructed based on a large number of clinical data sets. The model is hierarchical in nature and the strength of this was illustrated by incorporating a detailed model for plasmodium-infected red blood cells. This made it possible to simulate glucose metabolism in malaria patients and analyse the effect of the high metabolic activity of the pathogen on blood glucose homeostasis. Detailed models tend to get very complicated, and a flexible model reduction method was developed to keep models manageable, while specific drug targets can be analysed in full detail.

Supervisor: Prof JL Snoep

Co-supervisor: Prof C Hui

HENSBURG, Joshua Craig (Chemistry)

Synthesis and characterisation of fluorinated-stabilised metal nanoparticles for evaluation in fluorinated biphasic catalysis

Fluorinated biphasic nanosystems were designed and synthesised as an approach towards a green strategy for facile separation and reuse of active metal nanoparticle catalysts. Typically, such systems consist of organic and fluorinated layers in which the catalyst is selectively soluble in the fluorinated phase, while the reactants are preferentially soluble in the organic phase. The fluorinated-phase biphasic strategy, which was ultimately produced, combines the high efficiency and selectivity of homogeneous catalysis with the ease of separation and recyclability of heterogeneous catalysis and is therefore part of a very modern and important field of research in catalysis and separation science.

Supervisor: Dr R Malgas-Enus

JACKSON, Hayley Claire (Biochemistry)

An investigation into the role of adiposity and progestins used in menopausal hormone therapy and breast cancer

Adiposity and progestins used in menopausal hormone therapy (MHT) are independently linked to the increased incidence of breast cancer. An investigation of multiple progestins showed that progestins differentially modulated adipocyte production of steroid hormones known to influence breast cancer development and progression. Similarly, aggressive cancer characteristics were exacerbated in a breast cancer subtype-dependent manner by some, but not all, progestins in an experimental model of obesity. Improved insight into the multifaceted relationship between progestins, obesity and breast cancer was provided, which may have important implications for the choice of progestin for obese postmenopausal women using MHT.

Supervisor: Prof DJ Africander

Co-supervisor: Prof C Pheiffer

JURISCH, Christopher David (Chemistry)

Studies towards the synthesis of the caulamidine core

Caulamidines A and B are marine alkaloids isolated from *Caulibugula intermis* and have an unprecedented structural scaffold. These compounds have previously been shown to have low micromolar antiplasmodial activities against the malaria parasite *P. falciparum*. The first attempt to develop a synthetic route to these novel natural products was therefore undertaken after a thorough literature search of strategies towards closely related compounds. Nevertheless, none of these proved applicable and therefore several new methods were evaluated for their applicability towards solving this synthetic challenge. The results have now laid the foundation for future work and studies on this significant synthetic challenge.

Supervisor: Prof GE Arnott

Co-supervisor: Prof WAL van Otterlo

KAMKUEMAH, Martha Ndeyapeumagano (Mathematics)

An analysis of security protocols for lightweight systems

As the Internet of Things comes to play a dominant part in everyday life, privacy and security become central issues (e.g. who can control the activator for my garage door?). Yet the devices are of lightweight computational ability and hence the techniques developed for cryptography over the internet do not apply. The methods developed for specification and validation of software are based on the system's input/output behaviour, and security has been regarded as beyond them. This thesis studies the extent to which those methods can be complemented with epistemic logic in order to reason about such issues with particular reference to the recent standards proposed for the Internet of Things.

Supervisor: Prof JW Sanders

KELLERMAN, Leanne (Polymer Science)

A reversible hydrogel for application as male contraceptive

Hormonal methods for contraception in men turn out to be highly complicated, which is why this study focused largely on alternative approaches. Inspired by a high molar mass poly(styrene-co-maleic acid)-based hydrogel as a vas-occlusion device, a reversibly crosslinkable hydrogel was developed. The base materials are of relatively low molar mass and the reversibility of the hydrogel is afforded by an exogenous biocompatible compound that irreversibly breaks the crosslinks to yield a relatively low-viscosity polymer solution. Initial tests showed that the two-component system gels within tens of seconds, whereas the redissolution takes place over a few minutes.

Supervisor: Prof L Klumperman

Co-supervisor: Dr R Pfukwa

LAGAT, Vitalis Kimutai (Mathematics)

Modelling multi-species co-occurrence patterns and processes

The structure of ecological communities is determined by the interplay among a range of processes. Using species-by-site matrices, null models that are based on permutations under constraints have been widely used in the field. This study proposes a multi-species co-occurrence index and identified nine archetypes of species co-occurrence. A statistical model, namely the generalised B-spline modelling, was developed that can use trait variations among species as a niche-based force and encounter rate as a neutral force to explain the latent interaction strength structure of ecological communities.

Supervisor: Prof C Hui

Co-supervisor: Dr G Latombe

MARTIN, Nicole (Zoology)

Understanding the implications of predicted changes in temperature and pH for the predatory whelk *Trochias cingulata*

Ocean acidification and changing temperatures are two outcomes of climate change in marine systems, but the way in which these changes affect marine organisms along the South African coast is poorly understood. In laboratory experiments, the predatory gastropod *Trochias cingulata* was affected by both these environmental changes. Survival was reduced under warming, while shells become more elongated under cooling and weaker under acidification. However, acidification did not narrow thermal tolerance, limit the whelk's acclimation ability or alter prey choice. This resilience may be imparted by exposure to naturally occurring episodic acidification events with the whelk's distribution range.

Supervisor: Prof TB Robinson-Smythe

Co-supervisor: Prof S Clusella-Trullas

MATTHEWS, Megan Esme (Polymer Science)

Solid state interactions of materials: Applications based solid state NMR

Most analytical techniques that probe structure-property relationships in materials depend on the dissolution of materials before analyses. The ability to probe morphology changes and molecular interactions in the solid state is preferable, as materials are generally used in the solid state and undergo changes due to external influences. The only way to probe both morphology and molecular interactions in the solid state is by solid-state NMR spectroscopy. Three industrially relevant scenarios were investigated. It was shown that a variety of solid-state NMR methodologies could advance the understanding of molecular events in materials during manufacture and use.

Supervisor: Prof AJ van Reenen



OLLEWAGEN, Tracey (Physiological Sciences)

Intercellular communication between macrophages, myoblasts and fibroblasts in the context of rheumatoid arthritis-associated skeletal muscle wasting

In the context of rheumatoid arthritis muscle wasting, a rodent model of collagen-induced arthritis was employed to correlate the extent of muscle wasting, fibre type and redox status in different muscle groups. Inflammatory dysregulation, muscle regenerative capacity and extracellular matrix deposition and the relative abundance of major cellular contributors (macrophages, myoblasts and fibroblasts) were determined in the muscle most affected by induced arthritis. A novel human triple cell co-culture model incorporating exposure to patient serum (simulating arthritis-associated systemic dysregulation) was consequently developed. The model accurately reflects the tissue profile of rheumatoid arthritis and beneficial cellular responses to potential treatment.

Supervisor: Prof C Smith

Co-supervisor: Prof KH Myburgh

RANAIVOMANANA, Valimbavaka Hosana (Mathematics)

Investigations on the Wigner derivative and on an integral formula for the quantum \mathfrak{sl}_2 symbols

Spherical trigonometry and quantum topology are active areas of interest in mathematics. Two main results were obtained. Firstly, the partial derivative of edge length with respect to opposite dihedral angle (all other dihedral angles remaining fixed) was computed for a spherical tetrahedron, and was shown to be equal to the partial derivative of dihedral angle with respect to opposite edge length (all other edge lengths remaining fixed). Secondly, the interior term in the stationary phase approximation to a certain integral was computed, and shown to closely match a corresponding term in the known asymptotics of the quantum \mathfrak{sl}_2 symbols.

Supervisor: Dr B Bartlett

SIBANDA, Ndumiso (Polymer Science)

Sustainable functional materials from lignin: oxidative polymerisation, monomer synthesis and polymerisation

Lignin, representing up to 30% of the lignocellulose biomass, is an unexploited treasure, at least from a chemical point of view. Therefore, this study focused on the conversion of lignin to high-value aromatic monomers by a novel oxidative depolymerisation protocol. An analytical approach was developed that is based on first fractionating the complex depolymerisation product according to molar mass using preparative size exclusion chromatography. The fractions were then subjected to reversed-phase liquid chromatography coupled with high-resolution multiple-stage tandem mass spectrometry. In the later part of the study, a novel fully biobased monomer was produced to synthesise functional polymers.

Supervisor: Prof H Pasch

Co-supervisor: Dr H Pfukwa

SINGH, Asmita (Earth Sciences)

Understanding Southern Ocean phytoplankton ecophysiological response to iron availability

Phytoplankton primary production and carbon export play important roles in the global carbon cycle, and therefore in CO₂ regulation. In the Southern Ocean, productivity is presumably constrained by the availability of light and nutrients, especially the micronutrient iron. An unexpectedly high variability in photosynthetic efficiency prevails in the presumed iron-limited Southern Ocean, indicating that the expected limitations are not uniform, not even within a single season and water mass. Hence, considering the Southern Ocean as 'iron-limited' is a too simplistic concept over space and time. Instead, photosynthetic efficiency, and ultimately atmospheric CO₂ uptake, is controlled by multiple biogeochemical drivers.

Supervisor: Dr S Fietz

Co-supervisor: Dr S Thomalla

SMIT, Marica (Polymer Science)

Polymer-coated magnetic nanoparticles and polymer nanoparticles for the treatment of *Mycobacterium tuberculosis* (*Mtb*)

Anti-tuberculosis drug-loaded polymer nanoparticles and polymer-coated iron oxide nanoparticles were prepared and investigated for tuberculosis treatment. Sustained drug release was achieved from the nanoparticles, which could enable less-frequent drug dosing after inhalation of the nanoparticles. Chitosandextran sulphate nanoparticles were determined to be the optimal anti-tuberculosis drug carrier via an antimicrobial study. The drug-loaded chitosan-dextran sulphate nanoparticles had improved antimicrobial activity compared to the free drugs. The polymer-coated iron oxide nanoparticles were determined to be superparamagnetic and could therefore be utilised to direct the nanoparticles via an external magnetic field, without retaining magnetisation.

Supervisor: Dr M Lutz

STEYN, Annica (Microbiology)

Producing organic acids from pomace wastes - a biorefinery concept

Valuable chemicals produced from petroleum could be partially replaced by plant-based biorefineries that require suitable microbial strains. Specific agricultural waste sources were mined for yeast strains with improved malic acid degradation abilities. Metabolic screenings revealed a *Saccharomyces cerevisiae* strain with higher malic acid-degrading capability, heat tolerance and biomass accumulation than previously reported for this species, suggesting potential value for industrial applications. Furthermore, recombinant expression of selected fumarase and malate transporter genes in *S. cerevisiae* strains allowed for fumaric acid production from malic acid that is abundant in grape and apple pomace, thereby showing promise for a fruit waste biorefinery concept.

Supervisor: Prof WH van Zyl

Co-supervisor: Prof M Viljoen-Bloom

TANUI, Hillary Kipruto (Chemistry)

Exploration of plants' natural chelating agents for selective extraction of metal ions

Polar crude extracts from 13 South African plants were investigated for the selective extraction of metal ions from solution. The extracts were excellent at extracting iron(III) and to a lesser extent lead(II) and copper(II). An analysis of plant phytochemicals present in the extracts indicated that the flavonoid quercetin was common in all samples. Analogous extraction experiments were carried out using pure quercetin, morin and rutin. The most common extraction profile was the same as that of quercetin, confirming that quercetin is a common phytochemical in the crudes. The first crystal structure of an iron(III)-morin complex was determined, showing its coordination.

Supervisor: Prof RC Luckay

Co-supervisor: Prof AA Hussein

VAN HORSTEN, Natasha René (Earth Science)

Insights into early winter Southern Indian Ocean dissolved iron distributions and remineralisation using excess barium (GEOTRACES GIPr07 cruise)

This study presents the first dataset of dissolved iron and the remineralisation proxy, barium excess, in the Southern Indian Ocean during austral winter. Observations were conducted along the 30°E line to collect data on the distributions and internal cycling processes controlling the biologically crucial micronutrient iron. Remineralisation proxies, namely apparent oxygen utilisation and barium excess, were used to quantify the fluxes and stocks of remineralised iron in intermediate waters. Observations revealed a lack of a distinct seasonal cycle and that remineralisation appears to be the dominant process driving the distribution of iron in these waters during winter.

Supervisor: Prof AN Roychoudhury

Co-supervisors: Drs G Sarthou, E Bucciarelli

VAN NIEKERK, Annick (Chemistry)

The synthesis and investigation of palladacycles as potential anti-cancer agents

A suite of novel palladacycle complexes, which incorporated various hydrophilic functionalities, was synthesised and fully characterised using several analytical techniques. All the complexes were subjected to *in vitro* testing as anti-cancer agents against two breast cancer cell lines. Several of the complexes, especially the binuclear analogues, were found to show promising biological activity with the BTC2, exhibiting activity that far exceeds that of the well-known anticancer agent cis-platin. Investigations using DNA and protein-binding studies provided some further insight into the mode of action of the new metallodrugs.

Supervisor: Prof SF Mapolie

Co-supervisor: Dr P Chellan

ZONYANE, Samkele (Botany)

Metabolomic analysis of *Lessertia frutescens* (L.) Goldblatt & J.C. Manning, syn. *Sutherlandia frutescens* (L.) R. Br populations in South Africa

Metabolomic and pharmacological variation was correlated to the site of collection of wild plants of *Lessertia frutescens*, a popular South African medicinal plant that is known as 'cancer bush'. These phytochemical differences may be associated with genetic population structure. The selection of chemotypes for the manufacture of highly effective phytomedicines needs to take into consideration inherent metabolomic differences that affect bioactivity. Cytotoxicity profiles of cancer bush extracts highlighted the importance of establishing protocols for the quality assurance and standardisation of botanical remedies. The new knowledge generated further validated claims linked to the use of *L. frutescens* as a traditional medicine.

Supervisor: Prof NP Makunga



Fakulteit Natuurwetenskappe | Faculty of Science

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Natuurwetenskappe Master of Science

Adams, Tristan (Botany) (*cum laude*)
Becker, Adolf Burger (Computer Science)
Beste, Siann (Physics) (*cum laude*)
Bhana, Zoë Tyler (Microbiology) (*cum laude*)
Borstlap, Cornelius Johannes (Microbiology) (*cum laude*)
Burger, Christiaan Neil (Computer Science) (*cum laude*)
Cairns, Megan Louise (Physiological Sciences) (*cum laude*)
Crous, Willem Hendrik (Applied Mathematics) (*cum laude*)
Crowder, James (Chemistry) (*cum laude*)
Daumas, Tshenolo Thato Eustacia (Applied Mathematics)
De Beer, Carla (Plant Biotechnology)
De Bruyn, Rochelle (Plant Biotechnology) (*cum laude*)
De Nicola, Ella Hannan Maria (Genetics)
Dempers, Nadine (Physics) (*cum laude*)
Dijkerman, Alexander Koeloe (Genetics) (*cum laude*)
Du Toit, Arne (Physics)
Dukes, Marc Daniel (Geo-informatics)
Fagg, Courtney (Zoology) (*cum laude*)
Fest, Helena Michaela (Earth Sciences) (*cum laude*)
Fourie, Samantha-Kerry (Applied Mathematics)
Frantz, Tagwin Claire (Biochemistry)
Gcakasi, Monis Noliitha (Earth Sciences)
Gibbs, Richard Peter Gordon (Mathematics) (*cum laude*)
Gibson, Hylton (Biochemistry)
Gouws, Christo (Physics)
Habeck, Manfred (Computer Science) (*cum laude*)
Heathcote, Nicola (Physiological Sciences) (*cum laude*)
Hugo, Paul Abraham (Mathematics) (*cum laude*)
Jackson, Megan Jane (Botany) (*cum laude*)
Jacobs, Desren Brando (Plant Biotechnology)
Janse van Vuuren, Melani (Biochemistry) (*cum laude*)
Jansen van Rensburg, Thomas William (Plant Biotechnology)
Klinck, Johan (Physiological Sciences)
Koech, Kiprono Elijah (Applied Mathematics)
Le Roux, Wilhelm Heinrich (Chemistry) (*cum laude*)
Maboeei, Palisa Mbalu (Genetics) (*cum laude*)
Mahanyapane, Motlatsi Vincent (Physics)
Malan, Amore (Zoology) (*cum laude*)
Maluleke, Nhlngano Dale (Mathematical Science)
Minnie, Savannah Loren (Biochemistry) (*cum laude*)
Motimele, Kanting Evidence (Mathematical Science)
Murray, Shona Megan (Biochemistry) (*cum laude*)
Nell, Eugene Hermanus Jacobus (Chemistry)
Neocosmos, Kibidi Alexander David (Applied Mathematics)
Ntwali N'Konzi, Joel-Pascal (Mathematical Science) (*cum laude*)
Patel, Vishaal Bandishkumar (Biochemistry)
Peta, Samuel Tebogo Posie (Zoology) (*cum laude*)
Rossouw, Christoffel Jacobus (Computer Science) (*cum laude*)
Schall, Philip Alois (Applied Mathematics) (*cum laude*)
Schuin, Janine (Microbiology) (*cum laude*)
Simons, Mishkah (Biochemistry) (*cum laude*)
Skosana, Unathi (Physics) (*cum laude*)
Smuts, Ivy Elizabeth (Microbiology)
Strydom, Marisa (Chemistry)
Tshibalanganda, Muofhe (Earth Sciences)
Van Breda, Isabella Karin (Earth Sciences)
Van Niekerk, Ryno (Polymer Science) (*cum laude*)
Van Rooyen, Jacobus Cornelius (Chemistry)

Werle, Mariana (Earth Sciences) (*cum laude*)
Ye, Jiajia (Chemistry) (*cum laude*)
Yuill, Jessie Joanne Margeret (Zoology) (*cum laude*)

Honneurs-Baccalaureus in die Natuurwetenskappe Bachelor of Science Honours

Abrahams, Ilhaam (Polymer Science)
Adendorff, MJ (Computer Science)
Berndt, David (Earth Sciences)
De Bruin, Travis (Computer Science)
Jones, Cameron (Polymer Science)
Louw, Liam (Computer Science)
Malan, Lisa (Computer Science)
Mokgwebo, Mashilo Ben (Earth Sciences)
Nortje, Cornelius Johannes (Applied Mathematics)
Van Renen, Hugo-Ben (Polymer Science)

Baccalaureus in die Natuurwetenskappe Bachelor of Science

Abrahams, Jody Anthony
Adriaanse, Janique Roché
Akinboade, Jennifer
Anastassiou, Alkiviadis
Annandale, Bailey Josh
Basson, Catherine Helen
Basson, Kristen
Beukes, Anorine
Beyers, Louise
Blight, Lauren Shirley
Bongo, Thulisa Sipehelele
Botes, Hendrika Susanna
Botha, Johane
Boting, Samantha Kerryn
Brand, Kristopher Thomas
Brand, Willem Andries
Breeds, Shannon Bridget
Brent, Courtney Ann
Buscop, René
Buys, Abigail
Castle, Matthew Stephen
Clarke, Calvin
Cleophas, Galin
Clinton, Tiffany Adelia
Coetzee, Wian
Coleman, Sasha Leigh
Collins, Megan
Cowley, Michael Lundin
Crotz, Govan Stephen
Cullinan, Amy Jennifer Westphal
Cupido, Shannen
Cuyler, Nina
Darkoh, Francisca
Day, Jason Charles
De Lorme, Nicole Hannah
De Wet, Michail Leon
Drotschie, Anais
Du Preez, Hulmari
Du Toit, Kirsten Monét
Du Toit, Madelaine Amore
Duthie, Donay Faith
Edmunds, Rebecca Helen
Eksteen, Anke

Essop Ahmed, Farhaan
Falakahla, Avile Avuyisene
Fawcett, Hayley
Fortuin, Lauren Lesley
Fumbalele, Kwanele
Galant, Imrah
Goliath, Estevohn Caden
Goosen, Nico Christiaan
Grobbelaar, Marquard Carl
Grobler, Anjè-Lorè
Groenewald, Sanmari
Guastella, George Tyrannus Louis
Hannah, Chantelle Anne
Hicks, Megan Elizabeth
Hingle, John Stephen
Hoffman, Jané
Holz, Jeani (*cum laude*)
Hough, Renee Anne
Ismail, Naadir
Jacobs, Zoë Leigh
Jansen Van Vuuren, John
Jones, Gareth Martin
Johnson, Erin Sandy
Kennard, Dominique
Khumalo, Ismail
Kleynhans, Sarah
Kobokana, Viwe
Kraukamp, Logan
Kruger, Kian
Kruger, Tjaart
Krynauw, Moné
Kunene, Khwezi Iman
Labuschagne, Jeannette
Labuschagne, Marlianca
Laher, Ni-Shaat
Lakay, Fatimah
Leatherby, Ryan
Ledingham, Hannah
Losper, Kaylee Chantel
Louw, Stephanie René
Louw, Zuhancke
Maartens, Shane
Madzivane, Hlanganyeti
Mahlangu, Landiwe
Makhafola, Jeremia Tshopho
Malherbe, Stephanus Jacobus
Manhema, Remember
Marais, Phillip
Mbala, Amanda
Mbatha, Katlego
Mc Donald, Chloe Helen
McCallum, Paige
Meadows, Shanae
Meyer, Werner
Mieny, Melinda
Mkhize, Ntando Mamayi
Mokhorro, Moabi Gabriel
Moswane, Mokwale
Mouton, Alexander
Mouton, Marcelle
Moyo, Nonhlanhla
Mpinga, Herman Mpoyi
Mulder, Sabrina
Mupaya, Victoria Nyasha
Myburgh, Harry
Nagessur, Sajana
Naicker, Dierdre
Narain, Adam
Natha, Mohammed Ameer
Naude, Lucca
Nel, Michelle Louise
Newman, Chrystal Juliette

Ngwenya, Thomas
Nkasa, Atha
Nkentsha, Zenande
Ntuli, Lizzy
Nyoni, Mawande Junior
O'Meara, Mika Isabella Grace
Odhav, Kiara
Oosthuizen, Meghan
Paderes, Tylo
Padiachy, Tiffany Jessica
Pakisi, Olwethu
Parker, Rachel Megan
Parton, Wardah
Pick, Dean-Kirk
Pickering, Catherine Ruth
Pieterse, Mariska Lydia
Pillay, Verisha Kimeara
Pitswane, Emmanuel
Plaatjies, Rebecca Chelsea
Prins, Nell
Radebe, Zamahlubi Senamile
Rebello, Ashley Bronwyn
Reid, Jason Leslie
Reid, Nikita
Rhoda, Fatimah
Riley, Jade India
Rodrigues, Guilhermina
Romani, Anzelle
Romer, Michaela Christina
Rothman, Megan Jade
Saayman, Jute Jireh
Salasa, Ganeefah
Samina, Raquel (*cum laude*)
Samsodien, Tauhira
Schlechter, Lara
Schneider, Dominique Isabella
Schreuder, Nicola
Shears, Ashleigh
Snyman, Cassandra Elaine
Southway, Stephen Odhiambo
Steenkamp, Riandri
Steyn, Gina-Mari
Storm, Maruzahne
Swanepoel, Simone
Swartz, Willem Burger
Symons, Craig Christopher Ray
Ter Haar, Chantel
Tlhako, Moshate Sebatana Ramokone
Tredoux, Braden Thomas
Van den Bergh, Paige Hannah
Van der Merwe, Nina Deborah
Van Niekerk, Joné
Van Rooyen, Marlene
Van Tonder, Leany
Van Wyk, Keighley Margaret
Vermeulen, Toni-Rae
Visser, Johannes Christiaan
Vlok, Anna Catharina Elizabeth
Vlok, Marichen
Volkwyn, Teagan Claire
Walbrugh, Shannon Casey
Walters, Mieke
Wentley, Garth Nicholas
Wessels, Francél
Wiese, Nina
Wilken, Shané
Williams, Anil Hugo
Williams, Mia
Witbooi, Catherine Patricia
Woode-Smith, Caitlin Melissa (*cum laude*)
Xoki, Siphosihle
Xuba, Thandokazi





Fakulteit Faculty

Lettere en Sociale Wetenskappe
(Groep 1)

Faculty of Arts and Social
Sciences (Group 1)

6 April 2022 - 13:00

6 April 2022 - 13:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

Staan asseblief

1. Akademiese prosesie kom die saal binne.
2. Speel van die Nasionale Lied.
3. Formele konstituering deur die Visekanselier.
4. Verwelkoming deur die Visekanselier.
5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Visekanselier.
6. Sluiting deur die Visekanselier.
7. Akademiese prosesie verlaat die verhoog.

Programme

Please stand

Please stand

Please sit

Please stand

1. Entrance of academic procession into the hall.
2. Playing of the National Anthem.
3. Congregation formally constituted by the Vice-Chancellor.
4. Welcome by the Vice-Chancellor.
5. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Vice-Chancellor.
6. Closing by the Vice-Chancellor.
7. The academic procession leaves the stage.

Fakulteit Lettere en Sosiale Wetenskappe (Groep 1) Faculty of Arts and Social Sciences (Group 1)

DOKTORALE KWALIFIKASIES | DOCTORAL QUALIFICATIONS

DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

GWERU, Benjamin (Sociology)

Ageing, Gender and Class: Differences in experiences and livelihood strategies of ageing populations in Harare, Zimbabwe

This study explored experiences and livelihood strategies of ageing women and men in Zimbabwe, raising questions about what constitutes the category ageing. It engaged with the life histories of nine people residing in Harare, marked by different levels of affluence. The research critiques common associations made between ageing and passivity and engaged, instead, with the participants as active agents who construct the social worlds they inhabit. The participants showed eagerness for engagement with the researcher, debunking stereotypical associations of ageing people with infantilisation. Some of them, notably those who lacked social and financial support from family, were more susceptible to stigmatisation.

Supervisor: Prof DA Francis

Co-supervisor: Prof RW Pattman

JIMU, Tawanda (Geography and Environmental Studies)

Towards a conceptual framework for the analysis of governance arrangements and livelihoods of small-scale fisheries in Norton, Zimbabwe

The small-scale fisheries (SSF) sector is an important contributor to livelihoods in Zimbabwe. However, various governance challenges have resulted in limited access for several fishing communities. This study investigated the nature of governance and power relations in SSF and their impact on fisher livelihoods. The study adopted a grounded theory approach and employed qualitative methods for data collection. The results showed that the SSF sector in Zimbabwe is governed through an overlapping hierarchical centralised system, is poorly regulated and has serious implications for livelihoods. This study contributes to ongoing debates on fisheries governance and calls for participatory approaches in SSF in Zimbabwe.

Supervisor: Dr S Williams

Co-supervisor: Dr MA Spocter

MALOPE, Biotumelo James (Sociology)

Power struggles: An exploration of the contribution of renewable energy to sustainable development, decent work and the 'just transition' through a case study of wind farm development outside Loeriesfontein, Northern Cape province (2011–2020)

This innovative study on the contribution of two wind farms outside the small Karoo town of Loeriesfontein to local sustainable development and 'decent work' broadens the debate on the 'just transition' to a low-carbon economy to include the marginalised communities hosting the growing number of renewable energy projects in the Northern Cape. To date, the voices of these communities have been largely excluded from the debate. The study found that the contribution of the renewable energy sector to much-needed local employment is limited, but that there is an as-yet unrealised potential in the Community Development Trusts to tackle widespread household poverty.

Supervisor: Prof CJ Walker

MOUSSI, Corinne Aurelie (Political Science)

A Feminist Assessment of African women's experiences of wartime sexual violence before the International Criminal Court

Armed conflicts have devastating consequences on women and there have been serious calls to afford better protection to women. Despite these calls, African women continue to be essentialised and their experiences side-lined. This study investigated the accounting of wartime experiences of African women before the International Criminal Court and assessed the gender responsiveness of the Court. The study challenged the reduction of African women's experiences to a universal story of victimhood by providing accounts of various roles/identities women take on in war, highlighting the intersection between gender, ethnicity, soldiery status and political affiliation of African women's wartime experiences.

Supervisor: Prof A Gouws



NTSAMA ONANA, Serge Sabine (Sociology)

Socio-economic integration in the CEMAC zone: the case of Central African nationals in Douala, Cameroon

The Regional Community of Central Africa (CEMAC) includes the violence-torn Central African Republic and its neighbour, Cameroon. Accordingly, migrants and refugees from the former have entered Cameroon and often settled in Douala, in particular. CEMAC promises regional migrants equal treatment to those of citizens. This study investigated whether these migrants received such equal treatment. The results showed that the living conditions of Central Africans and Cameroonians are similar. Complaints from Central African respondents focused on pay in workplaces and the quality of accommodation rather than access to medical and educational institutions. No evidence of xenophobia among the residents of Douala was found.

Supervisor: Prof SB Bekker

Co-supervisor: Prof P Essomba (external)

PARKIN, Anna Christina (Political Science)

Parties of Pressure: Opposition parties in the dominant-party systems of Botswana and South Africa

In southern Africa, the emergence of dominant-party systems has posed unique challenges to democratic competition and consolidation. Using a comparative case study of Botswana and South Africa, this study sought to understand how opposition parties remained relevant and the challenges they faced in dominant-party systems. Key informant interviews were conducted with prominent opposition parties. The study's significance lies in the light it sheds on the democracy-supporting functions of opposition parties. It was found that opposition parties in dominant-party systems do not fit conventional theories of political parties. Instead, they inhabit a unique, but significant, democracy-supporting space, important for unconsolidated democracies.

Supervisor: Prof N de Jager

TAKUVA, Tinashe (History)

A Social, Environmental and Political History of Drought in Zimbabwe, c.1911 to 1922

This study explored the socio-environmental and political history of drought in Zimbabwe in the 20th century. It traced changes and surprising continuities between the colonial to postcolonial period and the shifting strategy of the state towards its citizenry. It applied Sen's model, the entitlement approach, analysing the ability of a person to secure enough food within the political milieu. The state deployed food entitlements to either improve or exacerbate the drought survival capacity of the peasantry. In response, the peasantry negotiated their own survival through engaging private traders, sympathetic elements within a fractured state and indigenous knowledge systems to survive.

Supervisor: Prof S Swart

VAN DEN BERG, Wessel (Sociology)

South African men's engagement in a feminist ethic of care: An extended case study

Women in South Africa spend eight times more time on unpaid domestic and care work than men. Motivated by this unequal distribution of care, this extended case study explored how men who live in affluent neighbourhoods in Stellenbosch, South Africa, care for their young children. The study included documented social encounters, semi-structured interviews and participant observation conducted at participants' homes or during family activities. The findings include that men's care interactions can contribute to democratic citizenship and expand fathering beyond 'patriarchy', which is supported by a description of how men's care interactions expand social norms of fathering.

Supervisor: Dr K Fakier

Co-supervisor: Prof RW Pattman

ZAGGI, Hilary Yacham (Sociology)

Gender, Sexuality and Schooling: An ethnography of young people in a secondary school in Kaduna State, Nigeria

In Northern Nigeria, schools do not include gender and sexuality in the formal curriculum. However, normative presumptions that reinforce double sexual standards are constantly communicated by teachers that pathologise girls as 'pregnant in the making' and through everyday institutional practices such as 'clothes checks' for girls during assemblies. These emerged as key findings in this ethnographic study conducted with young people in a secondary school in Kaduna State, Nigeria. The study argues for the development of forms of sexuality education that engage with the significance young people attach to sexuality and gender in their lives and that encourage anti-sexist and anti-heterosexist practices.

Supervisor: Prof DA Francis

Co-supervisor: Prof RW Pattman

Fakulteit Lettere en Sosiale Wetenskappe (Groep 1)

Faculty of Arts and Social Sciences (Group 1)

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Lettere en Wysbegeerte Master of Arts

Absalom, Inge (Political Science)
Andrews, Wendall Deudon (Geography and Environmental Studies A)
Annandale, Maria (Clinical Psychology)
Barnard, Daniela (History) (*cum laude*)
Blake, Lee (Psychology) (*cum laude*)
Bloch, Leila Ruth (History)
Chalmers, Brittany Inge (History)
Chauke, Lungile Tidy (Psychology)
Cupido, Josephine Patricia (Technology in Language Learning)
Dart, Sarah Jean (Sociology) (*cum laude*)
De Beer, Emile (History)
Du Toit, Tiaan (Socio-Informatics)
Field, Courtney (Psychology) (*cum laude*)
Gobodo, Bapiwe (Sociology)
Hartmann, Laura Anne (Psychology)
Hermanus, Ute Inge (Political Science)
Jackson, Justine Leigh (Psychology)
Jansen van Vuuren, Nicola (Psychology) (*cum laude*)
Jivan, Dionne Chelese (Clinical Psychology)
Karrit, Miriam (Psychology)
Kelepile, Tshepo Kelebile (Clinical Psychology)
Kepkey, Brigitta Blumé (Psychology)
Köhler, Nikita Stefanie (Psychology) (*cum laude*)
Kruger, Hermine (Psychology)
Lakay, Justin Randall (Clinical Psychology)
Lestrade, Louise (Psychology)
Louw, Emile (Philosophy) (*cum laude*)
Maketekete, Tiisetso Katleho (Psychology)
Maree, Hester (Political Science)
Martin, Lauren Amber (Political Science)
Mbatyoti, Nombasa (Psychology)
Minnaar, Natasha Daniela (Sociology)
Minnie, Leandri (Political Science)
Narker, Thania (Psychology)
Nel, Jacques (Psychology)
Pretorius, Ruan (Socio-Informatics)
Roux, Josephine Anne (Philosophy) (*cum laude*)
Scott, Lesley (Psychology)
Seymour, Daniëlle Afton (Geographical Information Systems)
Slabbert, Philip (Psychology) (*cum laude*)
Smith, Paige Taylor (History)
Solomons, Curtley Matthew (History)
Styan, James-Brent (History) (*cum laude*)
Thackwray, Savannah (Psychology)
Van der Merwe, Kanja Susan (Translation) (*cum laude*)
Van Niekerk, Nicolaas Jacobus (Psychology) (*cum laude*)
Van Schoor, Jeanne (Psychology)
Vogel, Steyn Lodewyk (Psychology)
Vorster, Alexandra (Psychology)

Magister in die Wysbegeerte Master of Philosophy

Beukman, Eduard Francois (Science and Technology Studies) (*cum laude*)
Butale, Tsogo (Monitoring and Evaluation Methods)
Coetzer, Shanti-Gita (Information and Knowledge Management) (*cum laude*)

Conradie, Liezel (Information and Knowledge Management)
Davids, Herschell Charles (Urban and Regional Science)
Ebrahim, Aishah Bibi (Transdisciplinary Health and Development Studies)
Gaffoor, Aasima (Science and Technology Studies)
Garbini, Kirsten Jean (Information and Knowledge Management) (*cum laude*)
Gutting, Robin (Urban and Regional Science)
Hölscher, Beate (Science and Technology Studies) (*cum laude*)
Lediga, Manoko Innocentia (Transdisciplinary Health and Development Studies)
Lephaila, Mphonyana Dimpho (Science and Technology Studies)
Mabatlle, Joseph Lekwe (Urban and Regional Science)
Macauley, Maruchane Christal (Science and Technology Studies)
Masiu, Paseka Nicolas (Applied Ethics)
Mkhize, Ntombenhle Prisca (Transdisciplinary Health and Development Studies)
Mohr, Tanya Janice (Monitoring and Evaluation Methods)
Munkanda, Waltraud (Applied Ethics)
Mwamba, Chanda Prudence (Transdisciplinary Health and Development Studies)
Nene, Siboniso Wilson (Transdisciplinary Health and Development Studies)
Ngubane, Nontobeko Precious (Transdisciplinary Health and Development Studies)
Raal, Ludwig (Applied Ethics) (*cum laude*)
Robberts, Frans Jackop Lourens (Transdisciplinary Health and Development Studies) (*cum laude*)
Shingange, Jameson Given (Information and Knowledge Management)
Sigenu, Viwe Aubrey (Science and Technology Studies)
Waddell, Anthony Simon (Information and Knowledge Management)
Wyngaardt, Allison Elizabeth (Science and Technology Studies)

Magister in Stads- en Streeksbeplanning Master of Urban and Regional Planning

Van Lille, Gerhard (Urban and Regional Planning)
Von Solms, Wian (Urban and Regional Planning)

Honneurs-Baccalaureus in die Lettere en Wysbegeerte Bachelor of Arts Honours

Abelgas, Amy Lisa (Social Anthropology)
Akiemdien, Chelsea Carole (Sociology)
Arendse, Lucinda (Philosophy) (*cum laude*)
Bosch, Marzele (Political Science) (*cum laude*)
Bossau, Haylene Eugenie (Political Science) (*cum laude*)
Brand, Oliver Drew (Philosophy) (*cum laude*)
Burger, Carl Christiaan (History) (*cum laude*)
Carstens, Mitchell (Sociology)
Chikoti, Tumaini Judith (History)
Cronje, Carla Daniela (Social Anthropology) (*cum laude*)
Croxford, Kegan Raymond (Philosophy)
Davids, Gita Angelica (History)
Du Plessis, Adrienne Zendrea (Sociology)
Du Preez, Kate Janet (Social Anthropology) (*cum laude*)

Eloff, Zahle (Philosophy) (*cum laude*)
 February, Tamlyn Rachel (Philosophy) (*cum laude*)
 Fife, Nabeelah (Sociology)
 Frieslaar, Allison Julia (History)
 Gould, Molly Green (Geography and Environmental Studies)
 Henkeman, Carlynn Tiffany (Political Science)
 Horsley, Cherise Mary-Ann (History)
 James, Rafeeq (History)
 Lloyd, Caitlin (Geography and Environmental Studies)
 Majuru, Gamuchirai Shelter (Geography and Environmental Studies)
 McGhee, Sasha Jill (History) (*cum laude*)
 Mdunyelwa, Charisma Nozuko (Social Anthropology)
 Meyers, Terri-Leigh (Sociology)
 Nel, Evert Andre (Philosophy) (*cum laude*)
 Newman, Tarryn (Psychology)
 Pearson, Kelly (Philosophy) (*cum laude*)
 Pienaar, Heide-Marie (Sociology)
 Ruiters, Keziah Ann (Geography and Environmental Studies)
 Sedeman, Fabio Yves (Sociology)
 Sedick, Rayhaana (Sociology)
 Smith, Leon (Philosophy)
 Thomo, Lethuxolo Ndalenhle (Political Science)
 Van Schalkwyk, Maryke (Psychology)

Nagraadse Diploma in Ramprisikostudie en -ontwikkeling
Postgraduate Diploma in Disaster Risk Studies and Development

Dlamini, Nokuphiwa Tisitile
 George, Dalene
 Makhaye, Welcome Nhlanhla

Nagraadse Diploma in Kennis- en Inligtingstelselbestuur
Postgraduate Diploma in Knowledge and Information Systems Management

Manaso, Katishi Evans

Nagraadse Diploma in Monitering en Evaluering
Postgraduate Diploma in Monitoring and Evaluation

Baron, Justine Carla
 Bekwa, Thukela Grace
 Claassens, Mareli Misha
 Dodo, Sesethu
 Hugow, Isabella
 Jones, Lindsey
 Kaisi, Chipo Catherine
 Kgaphola, Hlali Kemedi (*cum laude*)
 Mangale, Ndivhuho
 Maridza, Christabell
 Masiane, Mosoeu Victor
 Mbatha, Muziwakhe Shadrack
 Mbongo, Laina Tulipomwene
 Monethi, Libeo Sixtus
 Mpala, Ceridwen Sandy
 Nashandi, Margaret Ndapandula
 Ndoko, Linda
 Ngqase, Sinazo Abulele
 Nkaota, Fumane Getrude
 Nompekela, Zikhona
 Parker, Yumna
 Pule, Khumo Fortunato
 Tesele, Patricia
 Tshabalala, Simphiwe
 Zimri, Irma Selina

Baccalaureus in die Lettere en Wysbegeerte
Bachelor of Arts

Adendorff, Rudi
 Allerton, Tayo
 Andrews, Royston George
 Appollis, Yannicke Shirlynn
 Arnaud, Francois Jean Michel
 Aryee, Mabel Abena
 Babl, Bastienne Stefanie Margarethe
 Bakker, Mignon
 Bam, Siwaphiwe Vincentia
 Bath, Megan
 Bolnick, Gabriel
 Bondes, Joseph
 Botha, Jessica
 Botma, Clara Isabelle
 Bourne, Jason Tyler
 Brynard, Monique
 Burger, Tiani Christal
 Cele, Tamia
 Cilliers, Liesl
 Cilliers, Rebecca Catherine (*cum laude*)
 Cloete, Nina Leigh
 Coetzee, Anria
 Coleridge, Zadanian Daylin
 Crafford, Ruben
 Dalbock, Luke Hilton
 Damster, Taylor
 Darries, Lian Alridge
 De Beer, Alexandra Jade
 De Klerk, Angelique
 De Villiers, Cole Warren Lee-Rick
 De Villiers, Jana
 De Wet, Hannah
 Dell, Mi-Anne
 Diedericks, Eva
 Dimapo, Basetsana Kamogelo Tumediso
 Dowinton, Jesse Jordan
 Duncan, Cameron Craig
 Ebrahim, Rameez
 Ehret, Morgan Leigh
 Ekkerd, Zahn
 Ferreira, Isabella
 Filander, Salmonique Dina
 Firth, Jack
 Frans, Matthew Nathan
 Gaffoor, Farheen
 Geertsema, Francois Eduard
 Grand, Savannah
 Grimsel, Sadiyah
 Grobbelaar, Githe
 Hablutzel, James
 Harcombe, Kyran Georgia
 Hearne, Joshua David
 Heenop, Stephani
 Hennessy, Campbell Richard
 Henning, Lizane
 Hoffman, Sven Tomas
 Hughes, Alexandra Melissa
 Husselmann, Xillian
 Ismail, Zakiyya
 Jabaar, Maajiedha
 Jankovich-Besan, Alex
 Jansen, Inge
 Januarie, Cornelia Abigail
 Jarvis, Erin
 Johnson, Kiara Anne
 Jordaan, Aneeka
 Kawa, Khanyisa
 Khan, Shirihan

King, Ashley Elizabeth
Kinnear, David Lee
Knapp, Joshua-Connor
Knee, Olivia Magdalena
Koenig, Kyle Thomas
Kruger, Chloé Caitlin
Kurten, Tayla
Landman, Vehan Schoultz
Langry, Firdaws
Le Grange, Charne Joy (*cum laude*)
Loki, Asivile
Lotz, Jan-Willem
Loubser, Deirdre
Lumsden, Sarah
Maczali, Kaira Claray
Malan, Jonathan Johann
Malinzi, Timothy Kawalya
Mametja, Kgoao Kefihlile
Mandaha, Rilinde Reginah
Marais, Charl Marius
Marsberg, Erin Ruth
Mbuli, Simphiwe Mmeli Prince
McLeod, Amber Courtney
Mentor, Liam
Meyer, Rush Julian
Miller, Amy Jade
Mkhwanazi, Awande Nothando
Morenammele, Rorisang Kananelo
Mostert, Cecelia
Mostert, Christa Annette
Mota, Nthatsi (*cum laude*)
Mothupi, Puseletso Elaine
Mouton, Kia
Mtolo, Nqobile Karabo
Müller, Samantha Anne
Mzazi, Abenathi
Naicker, Bavani
Naran, Neeleshwari
Ngumbela, Unathi
Ntsaluba, Andisiwe
Oellermann, Tracey
Olifant, Siyethemba Nonjabulo
Paulse, Muneeb
Pellissier, Isabella
Pepar, Austin
Pienaar, Aneldi
Pieterse, Jurgens Johannes
Pillay, Jerisca
Potter, Jack Michael
Pretorius, Jan-Hendrik
Quinlan, Caitlin
Raath, Dewald
Rabie, Sophia Maureen (*cum laude*)
Reddy, Kreanne
Riches, Maxine Caitlin
Roos, Rochelle
Rossouw, Cheslin Adrian
Roux, Nina
Roux, Rhoné
Rowles, Kate Ann
Ruimbe, Rumbidzai
Rylands, Iman
Sass, Athelle Zhané
Schoeman, Genée
Schwartz, Mieke
Sears, Luca Rain
September, Steve Colin
Sesanti, Masimange
Shapiro, Daniel
Sinuka, Sibulele Lebo

Smith, Amber
Smith, Jani
Smith, Shakeena
Snyman, Katelynn (*cum laude*)
Snyman, Tian
Solomon, Justin Lyle
Stodel, Shannon
Strydom, Lara
Swart, Sean
Swarts, Erin
Teixeira, Tayla-Jade
Terblanche, Rohniel Gustav
Van den Berg, Michelle
Van der Rede, Isabella Maria
Van der Walt, Marcus Coert
Van Kerwel, Chenell
Van Rooyen, Rieke Sophy
Van Schalkwyk-Ahmed, Mishka Asheeqa
Van Zijl, Berno
Walker, Rebecca Elizabeth
Walters, Lauren Alicia
Walton, Kayla Siobhan
Weeden, Walter Thomas
Welgemoed, Zetta
White, Jodie Rochelle
Whitton, Samuel Gerard
Williams, Amina
Williams, Celeste
Williams, Fadeelah
Wilson, Amy Rose
Wolfswinkel, Merize
Zinn, Chloé Catherine





Fakulteit Faculty

Lettere en Sociale Wetenskappe
(Groep 2)

Faculty of Arts and Social
Sciences (Group 2)

6 April 2022 - 17:00

6 April 2022 - 17:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

Staan asseblief

1. Akademiese prosesie kom die saal binne.
2. Speel van die Nasionale Lied.
3. Formele konstituering deur die Kanselier.
4. Verwelkoming deur die Kanselier.
5. Voorstelling van die eredoktorandus en toekenning van die eregraad deur die Kanselier.
6. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Kanselier.
7. Sluiting deur die Kanselier.
8. Akademiese prosesie verlaat die verhoog.

Programme

Please stand

Please stand

Please sit

Please stand

1. Entrance of academic procession into the hall.
2. Playing of the National Anthem.
3. Congregation formally constituted by the Chancellor.
4. Welcome by the Chancellor.
5. Presentation of the candidate for the honorary doctorate and conferment of the degree by the Chancellor.
6. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Chancellor.
7. Closing by the Chancellor.
8. The academic procession leaves the stage.

Eregraad | Honorary Doctorate

FAKULTEIT LETTERE EN SOSIALE WETENSKAPPE FACULTY OF ARTS AND SOCIAL SCIENCES

Die graad Doktor in die Filosofie (DPhil), *honoris causa*, aan
The degree Doctor of Philosophy (DPhil), *honoris causa*, to

Diana Ferrus

vir die gebruik van haar skryfwerk en poësie om op te voed en te bemagtig, haar toewyding aan die ontwikkeling van 'n nuwe geslag skrywers, en die benutting van haar kuns om ook aan ander 'n uitlaatklep te bied.

Diana Ferrus is 'n gevierde Suid-Afrikaanse skrywer, digter en aktivis wie se werk allerweë vir die politieke impak daarvan erken word. Sy het op Worcester in die Wes-Kaap grootgeword en op 14-jarige ouderdom reeds oor haar persoonlike ervarings begin skryf. Sedertdien het haar werk oor rasse-, identiteits-, gender-, klas- en versoeningskwessies vele toekennings ingepalm.

Ferrus het onder andere lof ingeoes vir die gedig "I've come to take you home" wat sy geskryf het vir Sara Baartman, 'n Khoi-Khoi-vrou wat in 19de-eeuse Europa as 'n attraksie in fratsvertonings gebruik is. Die gedig is deels 'n oorwinningslied, en deels 'n veroordeling van die mishandeling wat Baartman moes verduur. Dit is voorgelees in die Franse Senaat toe lede die repatriasie van Baartman se oorskot bespreek het. Die gevolglike eenstemmige besluit om Baartman se oorskot aan Suid-Afrika terug te besorg word grootliks aan dié gedig toegeskryf. Ferrus het na Frankryk gereis en die gedig voorgedra by die formele oorhandiging van Baartman se oorskot, wat sy daarna terug huis toe vergesel het.

Boonop is sy 'n sterk kampvegter vir kreatiewe skryfwerk as 'n werktuig vir self- en sosiale ondersoek, en bied sy kreatiewe skryfsessies vir leerders en volwassenes aan om hulle aan te spoor om oor hulle verhale te skryf. Haar werk het al in verskeie bundels verskyn en van haar tekste is vir hoërskoolleerders voorgeskryf.

for using her writing and poetry to educate and empower, displaying commitment to the development of a new generation of writers, and utilising her art to offer a tool of expression to others as well.

Diana Ferrus is a renowned South African writer, poet and activist whose work is widely recognised for its political impact. Growing up in Worcester in the Western Cape, she started writing about her personal experiences at the age of 14. Since then, her work tackling questions of race, identity, gender, class and reconciliation has garnered many awards.

Among others, Ferrus earned acclaim for the poem "I've come to take you home" written for Sarah Baartman, a Khoikhoi woman who was exhibited as a freak show attraction in 19th-century Europe. The poem is part victory song, part condemnation of the abuse that Baartman suffered. It was read out loud at the French Senate during its discussion regarding the repatriation of Baartman's remains, and is widely believed to have inspired the subsequent unanimous vote for Baartman's remains to be returned to South Africa. Ferrus travelled to France and recited the poem at the formal handover of Baartman's remains, which she then accompanied back home.

A strong advocate of creative writing as a vehicle for personal and social interrogation, she also presents creative writing workshops for learners and adults, encouraging them to write about their stories. Her work has been published in various collections, and some of her texts have been prescribed for high-school learners.



Fakulteit Lettere en Sosiale Wetenskappe (Groep 2) Faculty of Arts and Social Sciences (Group 2)

DOKTORALE KWALIFIKASIES | DOCTORAL QUALIFICATIONS

DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

ABIYO, Rehema Bona (General Linguistics)

Literacy practices in and out of school in multilingual Kenya: An ethnographic study

This study investigated through an ethnographic approach the literacy practices of a community in Tana River County, Kenya. Data were collected through observations, interviews and through the creation of stories. The findings suggest that although English is the language of schooling, community practices value local languages and knowledge(s). The disconnect between school and community is argued to be responsible for a lack of parental involvement in the formal education of their children. The study proposes that the 'acts of linguistic citizenship' found outside the school setting can be used in the school to connect literacy to local practices.

Supervisor: Dr MCA Oostendorp

BICHWA, Saul Simon (African Languages)

The Determiner Phrase syntax of igiHa: A generative syntax-interfaces approach

The study examined evidence, assuming the framework of generative linguistics, that igiHa, an African language spoken in Tanzania that lacks overt articles (such as 'the' and 'a' in English), projects a determiner phrase above the noun phrase in the syntactic representation of nominal phrases. The study presents arguments in support of the view that the pre-prefix in igiHa is a functional category, namely determiner, specified for the semantic features of specificity and contrastive focus. This view is evidenced in the igiHa nominal phrase where the pre-prefix occurs in the inflectional morphology of some nominal modifiers.

Supervisor: Prof MW Visser

CHIRWA KAJOMBO, Marion Ndawaka (General Linguistics)

Communicating taboo topics in gynaecological consultations in Malawi: A Sociolinguistic study on effective strategies used in a conservative culture

In Malawian culture, discussing sex, sexuality, reproduction and pregnancy is taboo, especially outside of close personal relationships and/or in gender-discordant contexts. When these topics are discussed, indirectness is culturally required. This taboo also applies during gynaecological consultations, when clarity of communication is needed for accurate diagnosis and effective treatment. This first study of its kind, which made use of innovative data collection techniques, investigated the strategies male gynaecologists and their patients use when discussing matters pertaining to sexual and reproductive health. Teaching medical students to employ the sociolinguistic strategies uncovered by this study can improve gynaecological training in Malawi.

Supervisor: Dr LD Mongie

Co-supervisor: Prof F Southwood

INYANG, Idaresit (Drama and Theatre Studies)

Applying indigenous knowledge resources in children's play-crafting in Southern Nigeria: Practice-led research using Ibibio folk narratives

This study investigated play-crafting as a form of educational drama to renew the interest of Ibibio children in their indigenous knowledge resources. An educational project was carried out with 50 Ibibio children, aged 9 to 12 years, from selected primary schools in Akwa Ibom State, Nigeria. The practice-led fieldwork followed the combined approach by incorporating storytelling, improvisation and role-playing as creative tools in play-crafting. Through various levels of investigation, a field experiment and extensive analysis, the study established that the application of indigenous resources can transform the learning experience for children, with benefits to child and society.

Supervisor: Dr MH Pretorius

Co-supervisor: Prof MS Kruger

ISMAILA, Margaret (Drama and Theatre Studies)

Indigenous performance and Modernity: Investigating the vitality of play and work songs of the Dagaaba community of North Western Ghana as verbal art performance

The study investigated how modernity has influenced the vitality of play and work songs of the Dagaaba in Northwestern Ghana and how alternative platforms could be used to revitalise performances to ensure continuity of indigenous performances. Using an ethnographic approach, the study found that daily activities of the Dagaaba (farming, domestic chores, recreation, environmental rituals, ancestor veneration and rites of passage) provide some platforms for indigenous art forms. However, formal education, Christianity, technology, industrialisation and urbanisation weaken the vitality of performances. Meeting places of identifiable groups and competitions for indigenous performances were identified as alternative platforms.

Supervisor: Dr MH Pretorius

KHOSA, Priscalia (Social Work)

Implementation of the Supervision Framework for the social work profession in South Africa by a designated child protection organisation

The Supervision Framework for the social work profession seeks to conceptualise, contextualise and provide norms and standards that guide the execution of supervision in the country. However, since its inception in 2012, no study has been conducted on the outcomes of the Supervision Framework. This study generated ground-breaking empirical findings that synthesised both international and local research, a constructionist theoretical approach as well as policy and legislation on the implementation of the Supervision Framework in a specific child protection organisation. Key recommendations suggest the intensification of clinical support of frontline social workers, instead of mere neoliberal-inspired managerial supervision.

Supervisor: Prof LK Engelbrecht

KWANYA, Joseph Michael Amolo (English Studies)

Myth and Counterfactuality in Diasporic African Women's Novels

This study explored how novels by diasporic African women authors rework the idea of myth in order to challenge dominant masculinist and essentialist narratives. These authors draw on traditional myths, challenge the mythologising function of nationalist histories or generate new forms of myths for the future. Drawing on counterfactual theory, the study demonstrates how the authors take facts, historical figures, known histories and myths to create versions of events that make overt the central role of women. The analysis shows that while narratives such as myth and history seem fixed and controlling, counterfactuals are valuable tools for unsettling their dominance.

Supervisor: Prof LA Green
Co-supervisor: Dr N Sanger

MARTIN, Amy (Ancient Cultures)

Poetes on the Periphery? Revisiting the question of a female poetic tradition in Hellenistic poetry

The study revisited the notion of a female poetic tradition in ancient Greek literature. Arguing from a gynocritic paradigm, it traced various forms of allusion in the poetry of female epigrammatists (Erinna, Moero, Anyte and Nossis) from the Hellenistic age. The study argues for the importance of the early modes of transmission (epigram books and anthologies) in establishing trajectories of allusion, both by these authors and to them. It concluded that gender did not dictate the literary ambitions of these poets, but that they competed in and influenced the public poetic tradition with their innovation and poetic acumen.

Supervisor: Prof PR Bosman

MISBACH, Abdul Waghied (English Studies)

Postcolonial minoritarian characters: Transformative strategies for re-mediating raced marginalisation in South African English fiction

This creative-critical study engaged an experimental, postcolonial, social justice framework to explore transformative literary strategies for re-mediating raced and related marginalisation in examples of fiction in English. The study demonstrates how deep-rooted prejudices have sedimented among even seemingly progressive novelists, scholars and publishers. The re-imagining of influential novels such as *Disgrace* and *The Lacuna* from the perspective of minor characters disrupts received historical truths and reworks divisive cultural narratives. In adopting a minoritarian theoretical approach to fiction writing, the study used counterfactual, satirical and fabulist devices to overcome the distance between minority and dominant ideologies and to counter naturalised Orientalist and Islamophobic tendencies.

Supervisor: Prof SA Murray

OGELO, Kelvin Awino (General Linguistics)

Investigating evidence of linguistic relativity in Dholuo

This study investigated the relationship between language and thought in a previously unexplored language, Dholuo. The perceptual domains of space and motion were chosen as subjects of study. A series of verbal and non-verbal experiments was implemented to elicit data on conceptualisation processes during and outside of speech production. Because multilingualism is commonplace among Dholuo speakers, the study also investigated whether proficiency with other languages (English and Swahili) modulated their conceptualisation patterns. The results showed mixed support for an influence of linguistic categories on non-verbal cognition and limited effects of second language knowledge on native language conceptualisation.

Supervisor: Prof ENE Bylund Spangenberg

SASS, Jaydey (Afrikaans en Nederlands)

Die ontwerp van 'n model vir 'n toepassing vir Afrikaanse uitspraak in 'n taakgebaseerde leer- en onderrigprogram The design of a model for an application for Afrikaans pronunciation in a task-based learning and teaching program.

Hierdie studie bied 'n raamwerk vir 'n model waarvolgens 'n toepassing ontwerp kan word om studente wat Afrikaans aanleer met Afrikaanse uitspraak te help. Die uiteindelige doel van dié toepassing is om as bykomende hulpmiddel buite die klaskamer gebruik te word om studente te help om hul Afrikaanse uitspraak te verbeter. Die navorsing wat vir die studie onderneem is, is die eerste sistematiese navorsingswerk in Afrikaans wat die belangrike navorsingsterreine van Afrikaanse uitspraak, mobielgesteunde taalonderrig, voorsienbaarhede en spelifiëring koppel. Die bydrae van die studie sluit onder meer in 'n gebruikersgerigte uitspraaktoepassingsmodel wat deur alle belangstellendes gebruik kan word.

Promotor: Dr EM Adendorff

SEBIDIE, Godfrey (Social Work)

The challenges experienced by unemployed youth graduates in Botswana: An ecological systems perspective

Youth unemployment, especially graduate unemployment, has become a national concern in Botswana. The study aimed at gaining an understanding of the challenges experienced by unemployed youth graduates from an ecological systems perspective. The study was qualitative in nature with explorative and descriptive elements. Data were collected from unemployed youth graduates and programme officers in the Botswana government. The findings revealed that unemployed youth graduates were experiencing challenges on all levels of the ecological perspective, accompanied by a shortage of social work services. Recommendations are that existing government policy and initiatives be evaluated to improve and support the social work response.

Supervisor: Prof M Strydom



SPEMBA, Spemba Elias (English Studies)

Representation of Albinism and persons with Albinism in narratives from East and Southern Africa

This multi-disciplinary, cross-cultural study examined representations of albinism and characters or subjects with albinism in a selection of literary and cultural texts. Entirely African-focused, it is the first deliberation to bring together contemporary fiction (for children and adults), auto/biographical and short documentary narratives set in, and from, East and southern Africa to explore how issues of agency are represented. The study argues that cultural texts are a crucial site where public and private agency of subjects and characters with albinism is (re)configured, various perceptions describing persons with albinism and their condition are (de)constructed and (re)conceptualised, and decisive ethical questions are raised.

Supervisor: Dr M Slabbert

Fakulteit Lettere en Sosiale Wetenskappe (Groep 2)

Faculty of Arts and Social Sciences (Group 2)

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Lettere en Wysbegeerte Master of Arts

Adams, Doené (General Linguistics)
Baard, Helena (Drama and Theatre Studies) (*cum laude*)
Biscombe, Cleo Sabrina (English Studies) (*cum laude*)
Botma, Riette (Afrikaans and Dutch) (*cum laude*)
Britz, Carmi (Afrikaans and Dutch) (*cum laude*)
Butler, Emer (General Linguistics) (*cum laude*)
Dinabantu, Keith Sindile (Journalism)
Du Plooy, Jacobus Andrias (French) (*cum laude*)
Götze, Ancheri (Afrikaans and Dutch) (*cum laude*)
Human, Emrie (Afrikaans and Dutch) (*cum laude*)
Kershaw, André James Daniel (English Studies) (*cum laude*)
MacDonald, Bronwen Elizabeth (Ancient Cultures) (*cum laude*)
Mkondweni, Siphwiwo (African Languages) (*cum laude*)
Ngulu, Albertina Ndinelago Tuhumbata (African Languages) (*cum laude*)
Njeyiyana, Susan (General Linguistics)
Ntombela, Thandekile Gladness Roseline (African Languages)
Nxumalo, Thandiwe Fikile (African Languages)
Pather, Benedict Joseph (Journalism)
Pitt, Rebecca (General Linguistics)
Tshabalala, Tshepo Hendrick (Journalism)
Van den Brink, Jessica Hendrika (Ancient Cultures)
Van Eeden, Marguerite (Drama and Theatre Studies)

Magister in die Wysbegeerte Master of Philosophy

Zoio, Katya Izabella (Film Music)

Magister in Maatskaplike Werk Master of Social Work

Slazus, Almarie (Social Work) (*cum laude*)
Wolfaardt, Katelyn Anne (Social Work) (*cum laude*)

Magister in die Musiek Master of Music

Kannemeyer, Christina Maria (*cum laude*)
Levenderis, Frances Nikita Donata (*cum laude*)
Oosthuizen, John Ernst
Reynolds, Brent (*cum laude*)
Tremble, Caron Lisa
Williams, Craig Walter

Magister in die Lettere en Wysbegeerte in Visuele Kunste Master of Arts in Visual Arts

Bester, Lourens Petrus (*cum laude*)
Botha, Nicla
Deaney, Rushda
Dennis, Terri (*cum laude*)
Erasmus, Reino
Gagne, Abbey
Jordaan, Ronel
Koopstad, Karla Abigail
Legendyk, Mieke Legendyk (*cum laude*)
Landsberg, Lara Daryl

Middleton, Jessica (*cum laude*)
Naik, Ruhini (*cum laude*)
Pashaliev, Elinza Dorothea (*cum laude*)
Vermeulen, Pierre Carl (*cum laude*)

Honneurs-Baccalaureus in die Lettere en Wysbegeerte Bachelor of Arts Honours

Adams, Maryam (Journalism)
Arries, Anneline Shannon (Translation)
Augustyn, Ellen (Visual Studies)
Baartman, Kesia Jo-Melia Delita (German)
Basson, Eleonore (Afrikaans and Dutch) (*cum laude*)
Beeslaar, Llandi (Drama and Theatre Studies) (*cum laude*)
Beukes, Charissa (Chinese) (*cum laude*)
Blomerus, Elrike Andrea (Translation)
Bolarinwa, Sibulela Omotola (Journalism)
Brand, Johan Alexander (Journalism)
Breytenbach, Jan Andries (Visual Studies)
Bucholz, Kirsten Lee (Journalism)
Coetzee, Akira (Ancient Cultures) (*cum laude*)
Croucamp, Lazelle Sara (English Studies)
De Wet, Elmerie (Ancient Cultures)
Du Plessis, Inge (Journalism)
Du Plessis, Zahra (German)
Geldentuys, Ellen Judit (Visual Studies)
Guerandi, Giuseppe Ronaldo (Journalism)
Hemmonsby, Keanan (Journalism)
Heron, James Cameron (Journalism)
Ismail, Shakeelah (Visual Studies) (*cum laude*)
Jacobs, Keisha Tamia (Visual Studies) (*cum laude*)
Janse van Rensburg, Nicolle (Chinese)
Jantjies, Candice Francisca (Journalism)
Joyce, Martha Margaretha (Translation)
Kerbelker, Tanweer (English Studies)
Khaff, Zainab (General Linguistics) (*cum laude*)
Kleinhans, Kyla-Ann (Translation)
Koegeleberg, Ané (Drama and Theatre Studies)
Krige, Wessel (Journalism)
Lange, Emily Rebecca (German) (*cum laude*)
Le Roux, Adele (Translation)
Le Roux, Anje-Mari (Translation)
Leonard, Heléne (Journalism)
Maledo, Caitlin Matshidiso Alexandra (Journalism)
Manyane, Kgothatso (African Languages) (*cum laude*)
Matroos, Allison Micaela (Afrikaans and Dutch)
Matthee, Anri (Journalism) (*cum laude*)
Matthews, Denyse Evelyn (Translation)
Mc Dermott, Sinead (English Studies)
Metelerkamp, Tamsin (Journalism) (*cum laude*)
Muller, Megan Kim (Journalism)
Nogqala-Sonjani, Nosisana Portia (African Languages)
Rensburg, Kyra-Kay (Journalism)
Rossouw, Daniëlle (Translation)
Scheepers, Jana (Journalism)
Schoeman, Kimberley Jade (Journalism)
Schultz, Ruan (Ancient Cultures) (*cum laude*)
Seymour, Alistair James Seymour (Journalism)
Snyman, Elana-Marie (Drama and Theatre Studies) (*cum laude*)
Spingies, Nicola (Journalism)

Stewart, Marianne Francis (Journalism)
Swart, Mareli (Translation) (*cum laude*)
Van den Berg, Nicole Linda (English Studies)
Van der Berg, Willow-Ruby (French) (*cum laude*)
Van der Walt, Khenje Demeë (Chinese)
Van Heerden, Tegan Jerrynne (Chinese)
Van Rensburg, Ella (Translation) (*cum laude*)
Van Rooyen, René Isabel (French)
Van Wyk, Hercules Jacobus (Ancient Cultures)
Van Zyl, Kristina (Visual Studies) (*cum laude*)
Van Zyl, Lara (Journalism)
Visagie, Carla Wena (Journalism)
Walls, Erin Caitlin (Journalism)
Wepener, Ilse (Ancient Cultures)
Wilken, Anneki (Ancient Cultures) (*cum laude*)
Wilschutt, Nazley (Translation)

Honneurs-Baccalaureus in die Musiek Bachelor of Music Honours

Bothma, Tiaan Anton
Carr, Byron
Garcia Garcia, Claudia
Havenga, Lara (*cum laude*)
Jacobs, Michaela Margaret (*cum laude*)
Meaker, Teneale
Sparg, Joy Joanna (*cum laude*)
Van der Walt, Alida (*cum laude*)

Honneurs-Baccalaureus in die Lettere en Wysbegeerte in Visuele Kunste Illustrasie Bachelor of Arts Honours in Visual Arts Illustration

Abrahams, Mishkah Hanaa
Antoniades, Lara Josephine
Blaauw, Christiaan Nel
Du Toit, Ilkhe (*cum laude*)
Gunther, Gertruida (*cum laude*)
Johnson, Henri Wills (*cum laude*)
Loubser, Mieke Elizabeth (*cum laude*)
Meyer, Bryan Jeandre
Ngwenya, Buhlebenkosi Njabulo
Roux, Jan-Daniel
Van Tonder, Lara (*cum laude*)

Nagraadse Diploma in Musiektegnologie Postgraduate Diploma in Music Technology

Kostanjevec, Mitja
Rorich, Ancke Frieda

Baccalaureus in die Lettere en Wysbegeerte Bachelor of Arts

Adendorff, Finn Hendriks
Benjamin, Kelly-Ann Grace
Daly, Emma Ann
De Bod, Corleze
Dippenaar, Johannes Alwyn
Durr, Jocasta Diana Ramsden
Freed, Hannah Marthina
Harmse, Ilse
Katzke, Lane (*cum laude*)
Kennedy, Hannah
Kleynhans, Margitte Mia
Kulsen, Kirshni Oriël
Lawrence, Micalëb Albanishe
Livesey, Kayla
Mandibatsira, Tinotenda Delphine
Nisbet, Andoline Daniëlla Cecilia
Pienaar, Joanrae Tecla
Pinto, Emelaine Charlize

Rautenbach, Karin
Richard, Annica Ann
Rohde, Alexandra Olivia
Roos, Cindy
Samodien, Tawfeeq
Shongwe, Uphakeme Zamantimande
Souter, Rachel Beatrice
Stevenson, Caden
Strumphër, Simone
Uys, Jean-Marie
Vermeulen, Talitha
Von Molendorff, Hillet
Williams, Monique Emma

Baccalaureus in Maatskaplike Werk Bachelor of Social Work

Arnolds, Devone Shami
Cupido, Simtho Reid
Hess, Abigail
Madire, Dannyboy Matape
Mahlikihla, Ellen Nomasiyepi
Mourrats, Faeeka
Namane, Tebogo
Ncanywa, Amanda
Ndlovu, Sindisiwe Precious
Ngoma, Nvelo
Paulse, Sarahnade Melissa

Baccalaureus in die Musiek Bachelor of Music

Dauids, Galen Amy
Dowlath, Milan
Read, Jake

Baccalaureus in die Lettere en Wysbegeerte in Visuele Kunste

Bachelor of Arts in Visual Arts

Engelbrecht, Vincent (Fine Arts)

Diploma in Praktiese Musiek Diploma in Practical Music

Mosarwe, Tshepo

Hoër Sertifikaat in Musiek Higher Certificate in Music

Dennis, Jamie-Lee Rose



Fakulteit **Faculty**

Economiese en
Bestuurswetenskappe (Groep 1)

Economic and Management
Sciences (Group 1)

7 April 2022 - 09:00

7 April 2022 - 09:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

Staan asseblief

1. Akademiese prosesie kom die saal binne.
2. Speel van die Nasionale Lied.
3. Formele konstituering deur die Visekanselier.
4. Verwelkoming deur die Visekanselier.
5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Visekanselier.
6. Sluiting deur die Visekanselier.
7. Akademiese prosesie verlaat die verhoog.

Programme

Please stand

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1. Entrance of academic procession into the hall.
2. Playing of the National Anthem.
3. Congregation formally constituted by the Vice-Chancellor.
4. Welcome by the Vice-Chancellor.
5. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Vice-Chancellor.
6. Closing by the Vice-Chancellor.
7. The academic procession leaves the stage.

Fakulteit Ekonomiese en Bestuurswetenskappe (Groep 1) Faculty of Economic and Management Sciences (Group 1)

DOKTORALE KWALIFIKASIES | DOCTORAL QUALIFICATIONS

DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

MARSBURG, Angela (Industrial Psychology)

Development and evaluation of a longitudinal dynamic needs-action model of employee well-being: a psychological perspective

Employee psychological well-being is fundamental to many important organisational outcomes. Drawing on self-determination and psychological ownership theory, inspired by the recent eudaimonic activity model, this study develops a dynamic needs-action model of employee well-being from a psychological perspective. The model depicts well-being as a dynamic process underpinned by the connections between interrelated variables that change over time (basic needs, motivation to engage in well-being activities, activity engagement, positive psychological outcomes, and subjective well-being). Longitudinal cross-lagged panel modelling shows that both need salience and need satisfaction, motivated behaviour as well as active participation from the individual are vital to the experience of well-being over time.

Supervisor: Prof G Görgens

MBONDA TIEKWE, Aude Inès (Statistics)

A quantitative analysis of investor over- reaction and underreaction in the South African equity market: A mathematical statistical approach

This study explores the use of two mathematical statistical models – the fuzzy C-means model and a Bayesian model – to investigate whether South African investors tend to overreact and/or underreact over time. The 100 JSE-listed shares with the largest market capitalisations for every year over the 2006–2016 period are considered. While both overreaction and underreaction are detected across the three main financial sectors, the sectors exhibit unique, erratic patterns, which suggest that the behavioural phenomena are largely unpredictable. The two techniques are tested for robustness and thoroughly documented, with the data transformations needed to perform the analyses also stipulated for future studies.

Supervisor: Prof WJ Conradie

Co-supervisor: Dr R Lötter



Fakulteit Ekonomiese en Bestuurswetenskappe (Groep 1)

Faculty of Economic and Management Sciences (Group 1)

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Handelwetenskappe Master of Commerce

Booyesen, Nicole (Industrial Psychology)
Botes, Janice (Business Management) (*cum laude*)
Botha, Jana-Mari (Industrial Psychology)
Brown, Mario Jonathan (Transport Economics) (*cum laude*)
Coetzer, Brandon Alexander (Transport Economics) (*cum laude*)
Di Santolo, Claudia (Statistics)
Fick, Elizabeth Adri (Taxation)
Filter, Markus (Business Management)
Groom, Rebecca Lynn (Logistics Management) (*cum laude*)
Hearn, Caitlin (Industrial Psychology)
Janse van Rensburg, Sarah Margaret (Industrial Psychology) (*cum laude*)
Kotze, Ulrich (Statistics)
Kriel, Rudi Deon (Transport Economics)
Laubscher, Karla (Mathematical Statistics)
Neethling, Chelna (Logistics Management) (*cum laude*)
Nixon, Paul Prinn (Business Management) (*cum laude*)
Reid, Cailin (Industrial Psychology) (*cum laude*)
Sebitlo, Kgomotso Julian (Financial Risk Management)
Sparks, Kim (Human Resources Management)
Stander, Anwen (Industrial Psychology)
Steenkamp, Cara Yvette (Financial Risk Management)
Stemmet, Rushka (Industrial Psychology)
Stofberg, Suzanne (Logistics Management)
Swanepoel, Kayla (Industrial Psychology)
Theron, Liza (Industrial Psychology) (*cum laude*)
Wessels, Annelie (Quantitative Management)

Magister in die Wysbegeerte Master of Philosophy

Alobwede, Vivian Ebami (HIV/AIDS Management)
Campson, John William (HIV/AIDS Management)
Koneshe, Makatleho Constance (HIV/AIDS Management)
Maki, Chumani (HIV/AIDS Management)
Mambera, Ellen Nyaradzai (HIV/AIDS Management)
Mazibuko, Ntombenhle Elsie (HIV/AIDS Management)
Ndjambula-Boeren, Frieda Nangula (HIV/AIDS Management)
Ndlovu, Nicolaide Nomzamo (HIV/AIDS Management)
Ndlovu, Nolwazi Josephina (HIV/AIDS Management)
Ngomane, Lindiwe Fortunate (HIV/AIDS Management)
Nyadenga, Dorcus (HIV/AIDS Management) (*cum laude*)
Rademeyer-Bosman, Lynette (HIV/AIDS Management)
Strauss, Aidan Blaine (HIV/AIDS Management)
Zondi, Ntobeko (HIV/AIDS Management)

Honneurs-Baccalaureus in die Handelwetenskappe Bachelor of Commerce Honours

Albertyn, Carla (Mathematical Statistics)
Bijsters, Samantha Jane (Mathematical Statistics)
Buys, Ruan (Financial Risk Management)
Chabalala, Phisa Sinikiwe Hiandzile (Transport Economics)
De Clippel, Laurence Annouchka Vincent Michele (Logistics Management) (*cum laude*)
De Jongh, Daneel (Human Resources Management)
Dodd, James Andrew (Financial Risk Management)
Downing, Samantha (Operations Research)

Engelbrecht, Louren Sharn (Logistics Management)
Fitzhenry, Kirsty Leigh (Financial Risk Management)
Halgryn, Rita Helena (Logistics Management) (*cum laude*)
Harker, Terri Katelin (Financial Risk Management)
High, James Luke (Logistics Management)
Holtzhausen, Yolande Ailsa (Industrial Psychology)
Huskisson, Simone (Logistics Management)
Lederer, Alessia Renate (Financial Risk Management)
Maphatsoe, Phuthehang (Financial Risk Management)
Meyer, Anton Michael (Financial Risk Management)
Mkhize, Nobuhle (Industrial Psychology)
Moche, Gomolemo Thamsanqa (Financial Risk Management)
Ngwenya, Thembeke Precious (Transport Economics)
Pienaar, Anel (Logistics Management)
Pinto, Lara Amalia (Logistics Management)
Reade-Jahn, James Max (Transport Economics)
Rhoda, Aishah (Industrial Psychology)
Roseveare, Philippa Lynne (Logistics Management) (*cum laude*)
Sesink Clee, Daniel Luc (Logistics Management)
Strauss, Suzan (Industrial Psychology)
Strydom, Krynauw (Financial Risk Management)
Tallie, Charissa (Financial Risk Management)
Venter, Tiaan (Business Management)
Waite, Tasmin Stephanie (Logistics Management)

Nagraadse Diploma in Strategiese Menslikehulpbronbestuur Postgraduate Diploma in Strategic Human Resource Management

Sibalatani, Lingani Martha

Nagraadse Diploma in Vervoer en Logistiek Postgraduate Diploma in Transport and Logistics

Abdulkadir, Mosidi Margret
Berend, Kamogelo Katiso
Carter-Smith, Rebecca
Masawe, Olipha
Truscott, Johannes Viljee

Nagraadse Diploma in Bemarking Postgraduate Diploma in Marketing

Beck, Amber Kelly (*cum laude*)
Benting, Shannon Leigh
Du Toit, Lana
Heydorn, Shael Irene
Hugo, Preston James
Kat, Caitlin (*cum laude*)
Koegeleberg, Phillip Christiaan
Koekemoer, Antigua Rose
Koen, Josephine Suseth
Lamberts, Kayler Kim
Maree, Byron Thorne
Melvill, Michelle
Mnisi, Vukosi Prosper Frederick
Smith, Matthew Andrew
Theron, Danéll
Van der Veen, Mieke (*cum laude*)
Visser, Anke

Werth, Carla
White, Caitlin Mornette

Nagraadse Diploma in MIV/Vigsbestuur
Postgraduate Diploma in HIV/AIDS Management

Agyepong-Yeboah, Amma Agyeman
April, Siphokazi
Barnes, Zolani
Bening, Joyce Emakayor
Bhengu, Phindile Precious
Biyela, Bontle
Cenga, Oyena
Chilwane, Vincent
Chiroma, Darlantine Mbachu
Cingo, Lihle Athiphila
Davids, O'Brian Anthony (*cum laude*)
Dikolomela, Gontse Tharololo
Dinge, Nomampondomise Precious
Dlamini, Bongekile
Godongwana, Thuthuzela Faith
Goliath, Megan Melissa
Gomo, Patricia Rungano
Gwebu, Celani Bongani
Gxalatana, Tandeka
Hamukuaya, Dilona Tuliikeni
Hlobo, Asanda
Hlongwane, Bongiwwe Precious
Kassakila, Sadiki Louis
Kgobane, Isaac Ratsie
Khaba, Moshawa Calvin
Khumalo, Sinenhlanhla
Kiburi, Mary Kawira
Klaas, Zolani
Kubheka, Sphelele
Lebotse, Ntsakisi
Lesemela, Tselane
Litabe, Boniswa Portia
Luwere, Nana Ngaley Nouchka
Mabeba, Tshweeng Dorah
Mahlulo, Qhama
Makhaye, Thembelihle
Makhoba, Thembela Nothando
Malinga, Sanele
Malivhadza, Marubini Bonny
Maluka, Heskin Castro
Mampunye, Siyanda
Manuel, Kay-Lee Marechell
Masango, Thembelihle Dudu
Masangu, Sandra
Masimula, Mbalenhle Valentine
Mathoma, Alipfali Mary-Jane
Mathunda, Thulani Audrey
Mbutso, Sfiso
Mbuyi, Carine Kadima
Mdliswa, Lindokuhle Viola
Mhlongo, Gladness Princess Zodwa
Mhlongo, Lindelwa
Mjaja, Ntombithule Samantha
Mjuza, Nwabisa
Mkwelo, Luthando Nkosinathi
Mmatsoku, Moloko Stephen
Mmirikwe, Chimezie Gideon
Mncwango, Buhle Fortunato
Modise, Precious Kealeboga
Mogano, Mmamara Christinah
Mokhahlane, Mpeile Catherine
Morakeng, Sophie Nkele
Mosome, Refilwe Rheumonia
Mpampi, Bulelwa (*cum laude*)
Mphakathi, Palesa Edith

Mphathi, Uphelin Zimkhitha
Mpongwana, Siziphiwe Anda
Mthethwa, Sindisiwe Innocentia
Mtoba, Kwezi Kwalo
Mtshali, S'thandazile Bongeka
Mungongo, Kasaku
Muoka, Kelechi Josephine
Mutambay Ndaya, Jinny
Mxoli, Thabisa Alec
Nakedi, Makoloi Sarah
Ncoyo, Phumza
Ncula, Kholiwe Gloria
Ndjeka, Khethiwe
Ndlebe, Jongisizwe
Ndlovu, Thembekile Fidelia
Ngcobo, Ziningi Cynthia
Ngobeni, Charity
Nhlengethwa, Khululiwe Prudence
Noemdo, Kerwin David
Ntaka, Punka Phatheka
Ntlharapane, Omphemetse Shadrack
Ntombini, Nosipho
Ntsaba, Mosa Victoria
Ntshiqqa, Nosiphelo Alakhe
Nyawo, Michael Sboniso (*cum laude*)
Nyawo, Patrick Sifiso
Nyenye, Lineo Grace (*cum laude*)
Otsogile, Kelebogile
Phiri, Sithembile Nozipho
Qaka, Siviwe
Quvana, Asiphe
Ramakau, Arcilia Nthabiseng (*cum laude*)
Roberts, Moleboheng Marcia
Sanda, Thembakazi
Sekhu, Tsholofelo Audrey
Semoisi, Tefo Stephen
Sibandze, Nontobeko Lucia (*cum laude*)
Sibiya, Siphumuzo Bruce
Sikhosana, Xolile Emmarancia
Situ, Hlalanathi
Skosana, Mandla Sandile
Sobhi, Saber Saber Sobhi
Speelman, Mary-Anne Anna
Tembe, Sabelo Obert
Thebe, Mojalefa
Thejane, Matumelo Lonea
Thela, Zanele Cynthia
Thite, Palesa
Tshabalala, Thokozile Zama
Tshirana, Nangamso
Van Rooyen, Robyn
Vasconcelho, Gabriel
Vellem, Asanda
Wakunga Mwitwa, Vanessa
Williams, Joyce Nomnikezo
Xongo, Anele
Xulu, Khanyisile Patricia
Zininga, Chipso

Baccalaureus in die Handelwetenskappe
Bachelor of Commerce

Adams, Dayle
Alberts, Jarrod Giovanni
Anthony, Kira Jade
Arends, Kayla Nicole
Azevedo, Karlo Antonio
Babüroglu, Dilara
Banda, Takudzwa Vincent
Barker, Tyla Storm
Barrish, Daniel



Bastiaanse, Nicoline Nenette
Bentley, Elizabeth Judith
Bettings, Mattieu
Bico, Jannet
Blandin de Chalain, Courtney Marie
Bleeker, Jacqpiere
Bulus, Gregory Vintcent Maxwell
Boshoff, Simeon
Bowazi, Elsie Daisy Alice
Boyd, Bradley Richard McCready
Bradbury, Ryan Jon
Bradfield, Declan Wayne
Brand, Daniel Andrew
Breedt, Roland Dirk
Breytenbach, Tanagh Jane
Brink, Peter Andrew Meynell
Britz, Johan
Burger, Janke
Burns, Andrew Keith
Cairns, Amy-Lee Moyes
Cavell-Clarke, Christopher
Chiyangwa, Mufarowashe
Coetsee, Werner
Conradie, Jacobus Daniel
Daly, Jordan Alexander
Davids, Lance Claude
Davis, Robert Govert
De Beer, Matthew Bradley
De Freitas, Romano Fernando
De Jager, Isabelle
De Klerk, Neena
De la Harpe, Janke Juanita
De Nysschen, Cornelius Johannes
De Vos, Carl
De Wet, Johannes Christiaan Hendrikus
De Wet, Mieke
Dekker, Catharina Hedwig
Dladla, Nokuthula Prisca
Dos Santos, Gabriela
Dos Santos, Gino Rocha
Drotskie, Pieter
Du Buisson, Jacoline Petro
Du Plessis, Emile Dwayne
Du Plessis, Lynn-Mari
Du Preez, Louis Johannes
Durant, Amore
Easey, Ross David
Elema, Reinhardt
Ellis, Chanté Petro
Esteban, Cheska Zen
Fagan, Zacaree Jaryd
Fechter, Anya
Feldon, Michaela Emma
Fourie, Stephen Justus
Frank, Johan
Franken, Simon (*cum laude*)
Gibson, Luke Aaron
Gilson, Georgia
Goosen, Eduan
Govender, Ashari Darshana
Greeff, Christoffel Johannes
Greyling, Dorothea Elizabeth
Greyling, Ferdinandus Jacobus
Groenewald, Emily Faye
Haasbroek, Lauren
Halgryn, Leon Philippus
Heard, Matthew
Hellens, Lucy Elizabeth
Hendricks, Clé Sergio
Herd, Joshua

Heyl, Isabelle Christina
Hiltermann, Michael James Christian
Hinds, Clifton Thomas Thade
Horn, Miché
Horner, James Claridge Marsden
Hughes, Kieran Michael
Huisamen, Zulaine
Hunting, Alex James
Ingle, Edan Rachel
Jardim, Simone Laura
Jarvis, Peter John (*cum laude*)
Jevon, Dale Matthew
Johannes, Emmerentia Jo-Anne
John, Andréya Celine
Kallis, Zander Christo
Kambasha, Kimberley Wadzanai
Kent, Jaime Margaret
Khan, Fatima
Kim, Ye-Ho
Kinsey, Joshua Darren
Kock, Brittany
Koopman, Kaythlynne Ruth-Anne
Kraut, Adam Isaac
Kroese, Nichol
Kruger, André
Kruger, Tharien
Kuehl, Natascha
Le Roux, Spencer Wian
Le Vatte, Michaela
Leather, Christy (*cum laude*)
Letcher, Ross
Levermore, Nicholas Andrew
Loeij, Caitlin Hanna (*cum laude*)
Lourens, Carla
Lourens, Ruben
Louw, Deon Dirk
Lund, Emma Francis
MacNaughton, Bradley Peter
Maharaj, Priyanka
Malherbe, Jozua Francois
Mapfuisse, Richard
Marr, Jason Caleb
Matonda, Alison Munashe
Matthysen, Jannis
Mavovana, Mike-Jr
Maynard, Dylan John
McLean, Cameron
Mdyesha, Zimasa
Melim, Antonia
Meyer, Cecilia
Miller, Enrique
Milton, Richard Vincent
Mogwaneng, Motolo Thuso
Moitshoki, Lungelo Moitshoki
Montocchio, Emma Jane
Moses, Sylvia Busiziwe
Mostert, Stephan
Motsi, Munashe David
Mouton, Andries
Mowers, Keshia
Mudzongo, Tadiwanashe
Naidoo, Tashen
Ndengu, Juliette Varaidzo Tanisha
Neethling, Marli
Nel, Harold Jordan
Newman, Harry James
Newton, Jethro Scott
Ngonyama, Thandolwethu Zithabile
Niehaus, Heyneke
O'Flaherty, Sean Thomas
Odendaal, Jacobus Johannes Jacques

Orton, Kirsten
Parker, Philip Holden
Perlman, Cullen
Pienaar, Pieter Jan
Pieters, Minette Anne
Pollet, Adrian Xavier
Poulter, George Richard John
Prins, Bianka
Prinsloo, Nadene Cheryl
Proctor, Benjamin Harry
Qonongo, Sivuyisiwe
Rapoo, Kgomotso Langutelani Porogo
Rensburg, Lincoln Lionel
Rijneveld, Walter Joost
Rimell, Courtney-Marie
Robbetze, Bjorn
Robertson, Sydney
Rodenbach, Emeric
Rodenbach, Nicolas
Rossouw, Christiaan Le Cordeur
Rossouw, Jean-Jacques
Sakalis, Kimon Michali
Sale, Luke Shaun
Sampson, Kai
Samson, Whitney
Sauls, Stacey Alyssa
Schoeman, Stephanus Daniel
Schoonwinkel, Jomari
Searle, Alexander Brian
Seele, Markus
Sivertsen, Kian Alexander
Slabber, Adriaan Jacobus
Slater, Christopher Howard
Slingers, Ruby Maxine
Smit, Barend
Smith, Dylan
Smuts, Michelle
Soon, Yeh Bon
Sparks, John Winchester
Spence, Bruce Terence
Stander, Ross
Stevens, Luke Watson
Stock, Megan Lisa
Stokes, Craig Matthew
Stramis, Désirée Ronelle
Strydom, Matthew Jon
Subroyen, Ariana Bethany
Swartz, Jason Patrick
Tafeni, Sonwabile
Tait, Logan Michael
Takalimane, Thakane Charity
Taljaard, Kaylyn
Theledi, Jando Leruo
Trussell, Jaime-Lee
Uys, Milé
Van Aarde, Johannes Nicolaas
Van der Merwe, Johannes Jurgens
Van der Merwe, Rudi
Van der Riet, Troon Jacob
Van der Walt, Tjaart Johannes
Van der Westhuizen, Michael
Van der Westhuizen, Stephanie
Van Eeden, Kiera Megan
Van Greuning, Werner
Van Heerden, Jack Patrick
Van Leeuwen, Greg Ryan
Van Rensburg, Charl Jaco
Van Rooyen, Renate
Van Staden, Gerhardus
Van Veijeren, Alexandra
Van Wyk, Stefan Erasmus

Van Zyl, Janita
Viljoen, Kelly
Visagie, Jani
Visser, Anika
Visser, Leonore Helene
Visser, Michele Christine
Wahl, Marga
Wallace, Cole Andrew
Wehmeyer, Kyla Jade
Wessels, Anita Emerentia
Wessels, Loren
Wessels, Tamera
Whitaker, Reece
Williams, Kieran John
Williams, Nicholas Louis
Witbooi, Bradley Delton
Woodburn, Steele T
Wyatt-Smith, Taylor
Yoon, Dong Jun

Baccalaureus in die Handelwetenskappe in Internasionale Besigheid

Bachelor of Commerce in International Business

Carew, Hannah Louise
De Bruyn, Rynhard Anton (*cum laude*)
Emms, Georgia
Emslie, Ryan
Fielding, Devon Henri (*cum laude*)
Georgiades, Paige (*cum laude*)
Grant, Grace Margery (*cum laude*)
Grenfell, Aeron Shayne (*cum laude*)
Hattingh, Renier Christiaan
Heyns, Lieze
Hubble, Tessa (*cum laude*)
Maherry, Sydney-Aidan
Manyika, Ruremekedzo Amanda
Matthews, Naadirah
Mortleman, Caylie Beth (*cum laude*)
Naidoo, Nishtha
Nothnagel, Michael Stephan
Pretorius, Annika
Raw, Justine
Strydom, Willem Hendrik (*cum laude*)
Van der Merwe, Emma
Van der Merwe, Lara
Willard, Nathan
Wilson, Abigail Grace (*cum laude*)
Young, James Campbell





Fakulteit **Faculty**

Economiese en
Bestuurswetenskappe (Groep 2)

Economic and Management
Sciences (Group 2)

7 April 2022 - 13:00

7 April 2022 - 13:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

1. Akademiese prosesie kom die saal binne.
2. Speel van die Nasionale Lied.
3. Formele konstituering deur die Kanselier.
4. Verwelkoming deur die Kanselier.
5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Kanselier.
6. Voorstelling van kandidaat vir die Kanselierstoekenning en oorhandiging van die toekenning deur die Kanselier.
7. Sluiting deur die Kanselier.
8. Akademiese prosesie verlaat die verhoog.

Staan asseblief

Programme

Please stand

Please stand

Please sit

1. Entrance of academic procession into the hall.
2. Playing of the National Anthem.
3. Congregation formally constituted by the Chancellor.
4. Welcome by the Chancellor.
5. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Chancellor.
6. Introduction of the candidate for the Chancellor's Award and presentation of the award by the Chancellor
7. Closing by the Chancellor.
8. The academic procession leaves the stage.

Please stand

Fakulteit Ekonomiese en Bestuurswetenskappe (Groep 2) Faculty of Economic and Management Sciences (Group 2)

DOKTORALE KWALIFIKASIES | DOCTORAL QUALIFICATIONS

DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

HLATSHWAYO, Ayanda (Economics)

Wage dynamics, trade-related wage premia and productivity spillovers: Evidence from the South African manufacturing sector

This study uses the SARS-NT tax administration-linked employer–employee panel dataset to gain new insights into wages, trade and productivity in the manufacturing sector. The results show that unchanging worker characteristics dominate both wage levels and growth. However, for low-income employees' wage levels, the characteristics of the firm are relatively more important. Firms that have international exposure through imported inputs, export sales and foreign direct investment pay the highest wages. Lastly, there are positive productivity spillovers from foreign-connected firms to domestic firms through worker mobility. This indicates the importance of participation in international markets for firm productivity and wages.

Supervisor: Prof N Rankin

KIMBUGWE, Hassan (Economics)

An assessment of malaria prevention, diagnosis and treatment services in Uganda

Despite substantial investments in malaria prevention programmes, the disease still accounts for the lion's share of mortality, outpatient visits and inpatient admissions in Uganda. This study finds that maternal education significantly boosts bed net utilisation among household members. Despite an improvement in the uptake of intermittent preventive treatment (IPT) during pregnancy in Uganda, uptake remains below the World Health Organisation target and with an overlap in the predictors of low uptake of IPT and antenatal care visits. It is also found that staff remuneration affects incentives for adherence to malaria protocols.

Supervisor: Prof R Burger

Co-supervisor: Dr F Matovu (*external*)

MINNIE, Roan Johan (Economics)

Bargaining competition and vertical mergers

The modelling of vertically related markets and vertical mergers involves several modelling choices that affect predicted model outcomes, such as wholesale and retail prices as well as output. Using simulation-based methods, the study compares alternative models of vertical competition based on different assumptions regarding the nature and object of vertical contracting. This allows a subsequent simulation-based comparison of models for analysing vertical mergers, showing how assumptions regarding vertical contracting map onto observable merger effects. Based on this comparison, the study introduces a vertical merger simulator tool for assessing vertical merger scenarios in practice.

Supervisor: Prof WH Boshoff

Co-supervisor: Prof LM Froeb

MKUPETE, Jaah (Economics)

Examining child health and nutrition inequalities in Tanzania

This study explores sources of persistent malnutrition and unequal opportunity in stunting among children below the age of five in Tanzania. Econometric findings show that food price fluctuations reduce child growth, although the impact is less severe in households that produce their own food. Milk consumption improves growth only in children aged two and older, contingent on living in households that own mixed ruminants. Inadequate water and sanitation services are leading contributors to unequal opportunity in rural areas. In urban areas, early-life feeding practices and food price fluctuations dominate. Proposed solutions focus on the smallholder sector and investments in rural infrastructure.

Supervisor: Prof D von Fintel

Co-supervisor: Prof R Burger

MWALE, Martin Limbikani (Economics)

The impact of farm input subsidies on women and children: Evidence from Malawi

African governments reintroduced farm input subsidies to restore food security to smallholder farmers. While previous evaluations highlighted positive aggregate impacts, this study is the first to focus on the effect of these subsidies on women and children, using microeconomic evidence from a Malawian survey and satellite data. Gender inequality worsens as landless women lose decision-making power to their husbands. Nevertheless, long-term child nutrition improves conditional on exposure to quality health care in early life. Girls' school dropout rates fall because kinship traditions incentivise fathers to leverage the subsidies for their daughters' benefit. Therefore, subsidies favour girls, but only until they marry.

Supervisor: Prof D von Fintel

Co-supervisor: Dr A Smith



Fakulteit Ekonomiese en Bestuurswetenskappe (Groep 2) Faculty of Economic and Management Sciences (Group 2)

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Handelswetenskappe Master of Commerce

Brand, Anika (Actuarial Science)
Brink, Jeanne (Economics) (*cum laude*)
Burger, Liebe (Economics)
De Nobrega, Hannah (Economics)
De Wet, Jessica (Economics)
Dolling, Jérôme (Economics) (*cum laude*)
Douglas, Jacobus Lodewicus (Economics)
Eybers, Johannes (Actuarial Science)
Friday, Megan (Economics)
Huffer, Calvin (Economics)
Landy, Angelique (Computer Auditing)
Lefela, Teboho David (Computer Auditing)
Marais, Wihan (Economics) (*cum laude*)
Matulich, Nadia Antonette (Economics) (*cum laude*)
Randell, Charles Malcolm (Economics)
Redders, Hannah (Economics)
Rouillard, Bruce James (Economics) (*cum laude*)
Rühle, Rebekka Sophie (Economics)
Tzemis, Jethro (Economics)

Magister in Rekeningkunde Master of Accounting

Goosen, Lize Adre

Honneurs-Baccalaureus in die Handelswetenskappe Bachelor of Commerce Honours

Barnard, Paulus Retief (Management Accounting)
Basson, Adriaan Smit (Management Accounting)
Cater, Tian (Economics)
Dlulane, Landela (Statistics)
Eloff, Christiaan Johannes (Economics)
Farquhar, Christopher (Economics)
Gauna, Andrea Lucia (Economics) (*cum laude*)
Grobler, Nadia (Management Accounting)
Groenewald, Wiaan (Management Accounting)
Jansen van Vuuren, Ruan (Economics)
Kreyfelt, Jason Duane (Statistics)
Laing, Harriet Catherine (Economics)
Leaser, Jody Ray (Management Accounting)
Maganga, Susana Faustin (Statistics)
Makin, Kate (Economics)
Manefeldt, Peter Cornelius (Statistics)
Mboko, Lewis Tendai (Economics)
Mkandawire, Lusungu (Economics)
Monnaatsheko, Mofenyi Winnie (Economics)
Msiza, Nokuthula Michel (Management Accounting)
Munsamy, Braden Ross (Economics)
Mupfumi, Farai (Management Accounting)
Naidoo, Reed (Statistics)
Olivier, Carel Aron (Economics)
Rossouw, Gerard Jacques (Economics)
Schwartz, Ivan Vivienne Lambert (Management Accounting)
Scott, Samantha Leigh (Economics)
Stapelberg, Keara-Linn (Statistics)
Staples, Sharon Lineo (Management Accounting)
Strydom, Joshua Luke (Economics)
Swanepoel, Frederik (Management Accounting)
Tadi, Keabetswe (Management Accounting)

Takalani, Mukovhe Glen (Economics)
Taylor, Hiten (Management Accounting)
Terblanche, Emma Leonie (Economics)
Uys, Elmi (Management Accounting)
Van der Vyver, Johan Louis (Economics)
Van Huyssteen, Lea (Management Accounting)
Van Zyl, Hendrik Loubser (Economics)
Viljoen, Zinia (Management Accounting)
Wellmann, Sven Oswald (Economics)
Wrensck, Jessica Kelsey Anne (Economics)

Nagraadse Diploma in Rekeningkunde Postgraduate Diploma in Accounting

Anderson, Mark Geoffrey
Barendse, Godwin Landor
Beukes, Marali
Billyram, Mahesh
Botha, Greyling
Cantatore, Sabrina
Chamane, Ntandoyenkosi Marcia
Chibi, Rutendo
Cloete, Mynhardus Jacobus Marais
Coetzee, Ben James
Coetzee, Cornelis Jacobus
Cremen, Dene Patrick
Deats, Jake Ethan
Desai, Shailen Ravi
Dietrich, Abigail
Downey, Justin Dillon
Dreyer, Robin Francois
Fleischhauer, Reuben Owen
Forder, Ross Jerome
Ganda, Sibahle
Ganief, Mu'izz
Geel, Hendrik
Hinchcliffe, Aran James
Hopane, Marona
Kana, Mahomed
Koekemoer, Carmen
Labuschagne, Pieter Wilhelmus
Letsie, Nothando
Magadze, Tyrone-Junior
Martins, Kenau Laignh
McEwan, Megan Kirsty
McLeod, Jenna Claire
Munyombwe, Doreen Muchaneta
Napoli, Lorenzo Gerardo Giuseppe
Ndlovu, Nomazwi
Philippides, Aspasia Maria
Poole, Nicholas John
Putter, Celine
Raats, Kenneth Estiaan
Rafferty, Jaddan Nevan
Siddle, Megan Grace
Small-Smith, Antonie Johan
Smith, Charne
Sutton, Kierny Mary
Thomson, Jemma Frances
Tollman, Luke David
Van den Berg, Ivonne Maureen
Van der Merwe, Donovan

Van Tonder, Carli
Viljoen, Delano
Walters, Johannes Roux
West, Abigail Lorraine
Witte, Marché

**Nagraadse Diploma in Aktuariële Wetenskap
Postgraduate Diploma in Actuarial Science**

Kotze, Sumane

**Baccalaureus in die Handelwetenskappe
Bachelor of Commerce**

Basson, Raold Daniël
Bhugwan, Sahil Rajesh
Brown, Lauren
Bryant, Christopher William
Burger, Riaan
Cillié, Jacobus Daniël
Combrink, Xander Francois
Couzens, Scott Roy
Dampies, Grant Hammond
De Abreu Aires, Nicole
De Jager, Theanca Eleanor
Donkin, Tayla Ann
Du Toit, Haniel
Duimpies, Lance Grant
Dyson, Ranaldo Russel
Ehlers, Gysbert
Esau, Cari Abigail
Esterhuysen, Jean-Pierre
Ferreira, Miyanke
Frans, Jade Jodie
Geldenhuys, Ruan
Gerber, Louie (*cum laude*)
Goodman, Caitlin Mae (*cum laude*)
Gordon-Turner, Liam
Greyling, Elizabeth Petra
Gricius, Kyla
Grosch, Joel Caleb (*cum laude*)
Grove, Adrian
Haller, Christopher James
Harvey, Simon
Hassiem, Rizqah
Hira, Bhindiya
Hugo, Daniël Leon
Hulme, Victor Daniel
Isaacs, Darren Marcel
Isaacs, Gardeo Edward
Jacobs, Milisa
Jennings, Mark Douglas
Johnson, Caitlin Marie
Kamocho, Langelihle Lesley
Kleinsmit, Michael Jacobus
Kleu, Matthew Murray
Kriel, Albertus Bernardus
Kuzamunu, Jemima Mambote
Kwibe, Natalie
Lee, Ryan Pin-I
Lenyeta, Teboho
Liang, Peng-Chen (*cum laude*)
Lishman, Saxony Angela
Loubser, Christoffel Johannes
Lubbe, Yvonne
MacKay, Zai boonisha
MacKay, Zirk
Mashavave, Elvis
Masibekela, Mbalenhle Sindisiwe
Masumpa, Asiphe Mercy
Mbungu, Sinalithemba
Meaker, Cade Reece

Mostert, Amicke
Muganda, Vanessa Deogratias
Murray, Brandon Ramiro (*cum laude*)
Ndonyane, Lebone Nteseng
Nel, Petrus Abel Elias
Ngwenya, Thembelihle Glory
Oelofsen, Yzané
Pandula, Abongile
Pretorius, Reuben André
Rhoda, Maryam
Rietoff, Kezia
Sadie, Joshua Abraham
Schreuder, Christopher Louis
Scott, Kaylah Dayne
Smit, Steven
Smith, Savannah Lee Maria
Solomon, Christopher Daniel
Strydom, Beyers
Swart, Johannes Dreyer Morkel
Teanby, Daniel Michael
Terblanche, Simone
Tewesa, Harriet
Tooze, Nicholas
Tredoux, Zandrea
Trodd, Bryce Henry
Trumpie, Susanna Hester
Tubb, Kobus
Van der Merwe, Johann Friedrich Eich
Van Eetveldt, Christoph Frans
Van Heerden, Tatum Jade
Van Nierop, Michaela Glenda
Van Schalkwyk, Aldrick Percivall
Van Zijl, Alexander Gideon Willem
Van Zyl, Anita
Varley, Hanco Robert
Vezasie, Gaby Kelly
Walker, Travis
Zembere, Dan-Angelus

**Baccalaureus in Rekeningkunde en Baccalaureus in die
Regsgeleerdheid
Bachelor of Accounting and Bachelor of Laws**

Aucamp, Chrismari
Bensch, Alexandra
Bezuidenhout, Leonard Francois
Botha, Chirs Mulder
Brandmuller, Carl Gustav
Burger, Willem Abraham
Charles, Ché Pogisho
Chiro, Amanda
Cronje, Eliz-Maric
Haupt, Victor Gabriel
Kieslich, Jenna (*cum laude*)
Koetsier, Hans-Jacques
Le Roux, Johan Hendrik
Lengana, Pride Thabo Mohapi Boipelo
Lindeque, Ané Anette
Lötter, Antoinette
Lumley, Keegan Bradley
Motumi, Onkgopotse Ratladi
Naidoo, Diyanka
Scarrott, Shannon Paige
Smit, Gerbrand Grobler
Steenkamp, Philip Rudolf
Stronkhorst, Angelique
Unger, Aimee Michaela
Van Eck, Robyn Mari



Baccalaureus in Rekeningkunde
Bachelor of Accounting

Adams, Jamie-Lee
Agherdien, Moegamad Laeeq
Aucamp, Jean Pieter
Bailey, Cailin
Barnard, Adam Alexander
Barnard, Annay
Barrow, Georgina Ailsa
Barry, Shannon Linda (*cum laude*)
Basson, Jana
Boettger, Roeloff Jacobus
Bogner, Phoebe
Bosman, Ferran
Botha, Lumé Martedi
Brand, Jacolene
Brand, Rikus Erasmus
Brandsma, Savannah Justine
Brandt, Dominique
Breetzke, Bradley William Paul
Brink, Jessie
Buckle, William James
Burger, Kristie
Cahi, Adam Sahd
Cameron, Andrew Barry
Campbell, Kayley Ann
Chimbetete, Tirivashe
Claassen, Jeanne
Claassen, Kira
Cloete, Andrew Jonathan
Clother-Sinclair, Cameron Karl
Clother-Sinclair, Courtney
Coetzee, Ruben John
Conradie, Megan
Cornelissen, Jovan
Curtis, Dylan Michael
De Bruyn, Carla
De Gray Birch, Kian Anthony
De Jager, Janeli Louisa
De Jager, Miha
De Kock, Bernè
De Villiers, Andre
De Villiers, Rudolph Marcus
De Waal, Adriaan Otto
Dhlamini, Jo-Anne Mantoa Basetsana
Diedericks, Anne
Du Toit, Friedrich
Eigenhuis, Jakobus Barend
Eksteen, Stefanie
Ellis, Jonah Charles
Emond, Rebecca Jane
Endenburg, Rory
Enslin, Tereza
Evans, Bradley Kenneth
Fagg, Kelly Dee
Fagodien, Raeeza
Fearnhead, Emma Rosalind
Ferreira, Liam
Firth, Anne Florence
Fleischhauer, Luke Christian
Fleming, Maxwell Leslie
Fyfe, Megan Julia
Gerrard, Loren Tayla
Gilfillan, Christoph Wehan
Goff, Zoe Samantha
Gonneau, Sebastian
Greyling, Ruben David
Hamman, Eduard Christiaan
Hart, Thomas Robin
Hay, Eduan Johan

Heyns, Marli
Hoffmann, Lauren Kate
Hofmeyr, Matthew Philip
Hofmeyr, Thomas
Hornickel, Frauke
How Son, Nathan Kyle
Hudson, Sam William Hougham
Hulme, Reinhold
Human, Daniele
Hunt, Jared Keagan
Huxter, Jamie Isabel
Irvine, Richard Oliver Forbes
Jauss, Matthias Gerald
Jones, Caleb Tavis Wayne
Jordaan, Hendrik Jacobus
Joubert, Cailin Ashleigh
Kader, Kiara
Kantilal, Riya
Kesaris, Hayden Gilbert
Klopper, Frances
Koch, Jack Anton
Labberte, Ryan James
Lahoud, Laurence Michael-John
Lambert, Jordan
Lamprecht, Henry
Larney, Kirsten
Lategan, Ida-Mari
Lategan, Louis Stephan
Lewis, Todd John
Liebenberg, Theunis Jacobus
Louw, Brendan
Lucas, Lisa Amber
Maluk, Aqueel
Malette, Kaylin
Mathews, Curtly William Douglas
Matiwane, Ngamele Gareth
Matthews, Caleb Micha Paul
Mazoue, Taliza
Mckie, Chelsea
McLachlan, Caitlin
McLoud, Migaël
Meth, Sinovuyo Sanelisiwe
Mokawane, Thato Kevin
Moonsamy, Trezhlan
Moxley, Bianca June
Mukwevho, Michelle Andiswa
Muller, Aletta Helena
Muller, Helaine Janka
Muller, Lindie
Muller, Magnus Clifton
Mungle, Anna Emily
Murison, Jenna Jade
Muroa, Reamohetse Appreciate
Neethling, Jana
Neethling, Johannes Josua Christiaan
Newton, Declan Richard
Ngonyama, Mincili Ncube
Noble, Ivanka
Oellermann, Shannon
Petersen, Kianna
Pool, Chrisne
Potgieter, Tertius Mechiel
Qabo, Chumisa Innocentia
Qagana, Yamkela
Quin, Leighton
Rautenbach, Kurt
Renoster, Oren Mcmel
Reynolds, Taine James
Richardson, Ryan
Rijnen, Zahn
Roberts, Emile Roy

Rose-Innes, Kelly Joy
Rouillard, Claire Marie
Rutherford, Laura Megan
Sauer, Zéann
Scheller, Karl Hans Friedrich Alexander
Scholtz, Daniël Francois
Shtein, Alexandra Katherine
Siebritz, Tian Nicolaas
Steyn, Liam
Strauss, Werner Frederich
Sutherland, Conrad
Swart, Willem Adriaan Stals
Theron, Lehan
Theron, Petrus Johannes Jacobus
Theunissen, Marthinus Wilhelmus
Thomson, Christopher James
Thorpe, Kelly Anne
Titus, Simone Ashleigh
Tostee, Carl Alain
Tsela, Simphiwe
Tsetetsi, Thabang Boti Samuel
Turner, Liam Riley
Van Burick, Johannes Lodewiekus
Van den Berg, Duan
Van der Merwe, Ebenice Laetitia
Van der Merwe, Hentie

Van der Merwe, Ivann Christiaan
Van der Merwe, Schalk Willem Petrus
Van der Spuy, Lehani
Van der Westhuizen, Carmine
Van Heerden, Stephan Matthew James
Van Rooyen, Elmarie
Van Tubbergh, Justin James
Van Zyl, Caro
Van Zyl, Daniel Brendan
Van Zyl, Hendrik Abraham
Van Zyl, Jakob Benjamin
Varley, Eugene Donovan
Versfeld, Robert Owen Rees
Vilakazi, Ntokozo Sizakele
Viljoen, Janeke
Warnich, Duan
West, Johan Daniel
West, Micaela Mary
Westcott, Cayleigh Jessica
Wicomb, Lara
Williams, Yuomna
Wood, Amy Joy
Wood, Lloyd Tanner Fergus
Zingela, Robert
Zororo, Tadiwanashe

Kanselierstoekenning | Chancellor's Award

FAKULTEIT EKONOMIESE EN BESTUURSWETENSKAPPE FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

Johan van Rooyen

Mnr Johan van Rooyen word vereer vir sy uitsonderlike bydrae as Direkteur: Inligtingstegnologie (IT) in die Fakulteit Ekonomiese en Bestuurswetenskappe. In sy loopbaan van meer as drie dekades het hy die Fakulteit behendig gelei van die begindae van persoonlike rekenaars op kampus, deur die IT-revolusie, tot vandag, waar IT-oplossings en -infrastruktuur onontbeerlike instaatstellers is van die Universiteit Stellenbosch se sukses. Mnr Van Rooyen se toewyding, strategiese versierendheid, vindingrykheid en sterk leierskap het 'n diepgaande impak op die vlot funksionering van die Fakulteit en die sukses van ons studente

Mr Johan van Rooyen is honoured for his exceptional contribution as Director: Information Technology (IT) in the Faculty of Economic and Management Sciences. In a career spanning more than three decades, he has steered the Faculty from the very first days of personal computers on campus, through the IT revolution, up to today, where IT solutions and infrastructure are key enablers of Stellenbosch University's success. Mr Van Rooyen's dedication, strategic foresight, resourcefulness and strong leadership have had a profound impact on the smooth functioning of the Faculty and the success of our students.



Fakulteit **Faculty**

Economiese en
Bestuurswetenskappe (Groep 3)

Economic and Management
Sciences (Group 3)

7 April 2022 - 17:00

7 April 2022 - 17:00



Program

Staan asseblief

Staan asseblief

Sit asseblief

Staan asseblief

1. Akademiese prosesie kom die saal binne.
2. Speel van die Nasionale Lied.
3. Formele konstituering deur die Kanselier.
4. Verwelkoming deur die Kanselier.
5. Voorstelling van kandidate wat kwalifikasies ontvang deur die dekaan van die fakulteit en toekenning van kwalifikasies deur die Kanselier.
6. Sluiting deur die Kanselier.
7. Akademiese prosesie verlaat die verhoog.

Programme

Please stand

Please stand

Please sit

Please stand

1. Entrance of academic procession into the hall.
2. Playing of the National Anthem.
3. Congregation formally constituted by the Chancellor.
4. Welcome by the Chancellor.
5. Presentation of candidates receiving qualifications by the dean of the faculty and conferment of qualifications by the Chancellor.
6. Closing by the Chancellor.
7. The academic procession leaves the stage.

Fakulteit Ekonomiese en Bestuurswetenskappe (Groep 3) Faculty of Economic and Management Sciences (Group 3)

DOKTORALE KWALIFIKASIES | DOCTORAL QUALIFICATIONS

DOKTOR IN DIE WYSBEGEERTE DOCTOR OF PHILOSOPHY

BANDA, Raymond (Public and Development Management)

A model to promote the effective use of evaluations in the South African agricultural sector

The South African government conducts many evaluations to assess the success of its programmes. However, the findings of completed evaluations do not always seem to inform programme improvement and policy decisions. Focusing on the agriculture sector, this study applies a utilisation-focused evaluation (UFE) approach to develop a streamlined model, aligned with the South African context, to ensure that evaluation findings are used. Implementation of the model is supported by a pragmatic five-phased process, appropriate structural, accountability and system integration mechanisms, and a receptive departmental evaluation culture.

Supervisor: Prof B Rabie

BUTHELEZI, Phakamani (Public and Development Management)

An analysis of South African public entity performance using biomatrix systems theory: A case of South Africa's water boards

The performance of South Africa's water boards as public entities is increasingly important. Water boards show an inability to adhere to the South African Constitution, and fail to meet performance targets, amidst pressure due to issues such as water access, quality and quantity as well as climate change. This study evaluates South Africa's water boards in terms of systems thinking. Qualitative research is carried out with case studies of Umgeni Water, Amatola Water and Overberg Water. The study confirms the significant role of good governance, systems thinking and human resources in water services provision.

Supervisor: Prof Z Ndevu

Co-Supervisor: Prof J Bossert (*external*)

DARTEY-BAAH, Samuel Kwasi (Business Management and Administration)

The relationship between project complexity and project success, and the moderating effect of project leadership roles in the construction industry of an emerging economy

This study highlights pertinent issues surrounding project leadership and project complexity in an emerging economy. By developing and applying a first-of-its-kind project leadership role instrument, the study reveals that the fulfilment of project leadership roles is integral to moderating the adverse effects of project complexity on project success. In a critical contribution to the area of project leadership, the study illuminates how significant strengths and weaknesses of various leadership styles moderate the success of complex construction projects. Within the project setting, transformational and ethical leadership minimises the adverse influence of project complexity by creating conditions of trust, respect, empathy and professionalism.

Supervisor: Prof M de Klerk

HACHOOFWE, Emelda (Public and Development Management)

Linking Natural Resource Governance to rural livelihoods and wildlife conservation: A case study of Mufunta Game Management area, Zambia

Governance is as much about coordinating actors and institutions as it is about steering them. By focusing on protected-area (PA) governance structures in the Mufunta game management area of Zambia, this study explores the coordination of institutions and actors in community-based natural resource management (CBNRM). Institutions and actors can influence constraints and opportunities for sustainable livelihoods and PA conservation. Through knowledge co-production, an equilibrium model is developed, combining a "bottom-up" and "top-down" approach to improve CBNRM implementation. The study demonstrates that knowledge about how governance, livelihoods and conservation interact and affect each other is necessary to craft a sound governance approach.

Supervisor: Prof K Muller

Co-supervisors: Prof E Sjaastad (*external*), Dr VR Nyirenda (*external*)

KAUNDA, Nikiwe Joyce (Public and Development Management)

Downward accountability and value creation: An examination of two non-profit organisations in South Africa

Guided by the public value strategy, this study examines how the missions and operational capacities of two non-profit organisations (NPOs) enhance NPO value and accountability. Using a mixed-methods approach, the study explores respondents' understanding and practices around participation, accountability and co-creation of valued outcomes. It is established that low levels of downward accountability can be enhanced by implementing practices and strategies that offer end users opportunities to provide input to make programmes more responsive. A model for increasing downward accountability is developed, and the usefulness of the public value strategy's analytical framework in enhancing NPO governance and service delivery is confirmed.

Supervisor: Prof Z Ndevu

Co-supervisor: Prof IK Theletsane



NKONTWANA, Phumlani Stanley (Public and Development Management)

African entrepreneurship: An exploration on innovation hubs as development institutions

This study explores 100 interdisciplinary and intradisciplinary stories of locals in Rwanda, Ghana and Kenya to make sense of innovation hubs' efforts to drive momentum and maturity in entrepreneurship across the continent. Using a narrative-based research approach through SenseMaker®, the study contributes an original account of stakeholders' experiences. The growing view is that, even though the mainstream discourse in entrepreneurship is about driving momentum and maturity across different ecosystems, local and indigenous entrepreneurs do not have a sense of control or human agency to shape the direction of African entrepreneurship towards the development outcomes they want.

Supervisor: Prof AP Burger

Co-supervisors: Dr J van Breda, Prof B Rabie

NYANGU, Moses Nzuki (Development Finance)

The dynamics and implications of market power, bank efficiency and bank risk-taking behaviour in the East African community

This study investigates the implications of increased market power and its effect on bank efficiency, bank risk-taking behaviour and overall financial stability. Empirical findings reveal that the joint effect of market power and bank efficiency is critical for financial stability, and depends on the specific type of efficiency being explored. Increased market power is observed to have a direct positive effect on bank stability, thus lending support to the concentration-stability hypothesis. Also, concentrated banks are more efficient and stable, thus supporting the efficiency-stability hypothesis. The results present potentially important policy recommendations for bank risks, market power and efficiency.

Supervisor: Dr N Marwa

Co-supervisor: Dr A Fanta

OOSTHUIZEN, Kim (Business Management and Administration)

Artificial intelligence (AI) in retail: The AI-enabled value chain

The study investigated how Artificial Intelligence (AI) transforms the retail value chain. First, AI transforms the linear retail value chains into circular, creating a more iterative and data-focused value chain. Second, AI shifts tasks from people to machines by fulfilling four key roles in the value chain: knowledge and insight management, inventory management, operations optimisation, and customer engagement. Third, AI is changing how retailers attain goals in the retail value chain through achieving specific outcomes such as cost-saving. Fourth, implementing AI creates complexities within retail, requiring a need to transform people, structure, technology, and tasks. This study contributes to academic discourse by broadening the understanding of how new technologies impact value chains in general and retail value chains in particular. The study also contributes to practice by providing retail leaders with a holistic view of ensuring the successful integration of AI into the business.

Supervisor: Dr E Botha

Co-supervisor: Prof M Butler

PAKKIES, Letsepa Promise (Public and Development Management)

Measuring fiscal sustainability and its determinants in South African municipalities

This study analyses the determinants of the fiscal challenges facing South African municipalities, and assesses the sustainability of their goods and services supply. Empirical quantitative assessments of the relationship between the composition of municipal spending and the dynamics of municipal debt are performed, as well as an assessment of municipal efficiency and fiscal sustainability conditions. A quantitative research approach is followed and the data envelopment analysis model is applied. This yields sound indicators for long-term budgeting. It is concluded that municipal debt accumulation, administrative intensity, a generous employee benefit system and inefficiencies have compromised the sustainability of goods and services supply.

Supervisor: Prof APJ Burger

Co-supervisors: Prof T Ajam, Dr L Mortimer

SMIT, Helene Magda (Business Management and Administration)

An integrated framework for the development of leadership integrity in Business School students

This transdisciplinary multi-methods study explores leadership integrity and its related constructs by means of an extensive literature review, a five-round Delphi study with at least 20 international subject matter experts per round, supplemented by focus groups and a graduate attribute questionnaire. A definition of leadership integrity is developed and later reframed as a vision of leadership integrity, in which the leader develops a moral ecology encompassing the self and the environment. The study culminates in an educational framework that describes the appropriate institutional environment and curriculum requirements to develop each of six mutually constitutive selves among Business School students.

Supervisor: Prof DJ Malan

Co-supervisor: Prof PJ Naudé

USTARZ, Yazidu (Development Finance)

Foreign capital inflows, financial development and sectoral growth in Sub-Saharan Africa

This study examines the sectoral effect of foreign capital inflows and financial development in 44 sub-Saharan African economies over the period 1990 to 2018. The findings, which are based on a combination of panel data models, show that the impact of financial development is threshold-specific and varies across sectors of the economy. Financial development also reduces foreign capital volatility above a certain threshold. Results of the dynamic ordinary least-square model show that different inflows have unique effects on each sector. Therefore, policymakers should channel specific inflows to support growth of a sector and accelerate financial development.

Supervisor: Dr N Marwa

Fakulteit Ekonomiese en Bestuurswetenskappe (Groep 3)

Faculty of Economic and Management Sciences (Group 3)

ANDER KWALIFIKASIES | OTHER QUALIFICATIONS

Magister in die Handelswetenskappe Master of Commerce

De Vlieg, Katelin Elizabeth (Public and Development Management)
Frans, Ilse Lezaan (Public and Development Management)

Magister in die Wysbegeerte Master of Philosophy

Bauer, Lauren (Sustainable Development Planning and Management)
Bent, Reginald Anthony (Management Coaching)
Bosman, Savanna (Sustainable Development Planning and Management)
Botha, Gideon (Futures Studies) (*cum laude*)
Brown, Louise Maria (Environmental Management)
Clifford, Deborah Ann (Futures Studies) (*cum laude*)
Cupido, Anita Deline (Management Coaching) (*cum laude*)
Davies, Liezl (Management Coaching)
Desai, Lee-Ann Tania (Management Coaching)
Diedericks, Christiaan Petrus (Management Coaching)
Femi-Kayode, Nneka Janine (Management Coaching)
Fenu, Eric (Management Coaching)
Griffiths, Aletta (Management Coaching)
Hagen, Bianca Louise (Environmental Management) (*cum laude*)
Hilligan, Inge-Marie (Futures Studies) (*cum laude*)
Hirschberg, Franz Richard (Management Coaching)
Holeni, Khopotso Cecilia (Management Coaching)
Hughes, Tarryn (Sustainable Development Planning and Management) (*cum laude*)
Hunt, Robin Andrew (Management Coaching)
Jansen, Christian Cornelius (Management Coaching)
Kruger, George Frederik (Management Coaching) (*cum laude*)
Kruger, Kamini (Management Coaching)
Maruping, Teboho Salmon (Management Coaching)
Mayer, Keziah (Environmental Management) (*cum laude*)
Molapo, Relebohile (Sustainable Development Planning and Management)
Mphahlele, Kgomotso Itumeleng (Management Coaching)
Niehaus, Charles (Futures Studies)
Nyikana, Dorothy Germinah (Management Coaching)
Orange, Jakob (Management Coaching)
Paterson, Margo (Sustainable Development Planning and Management) (*cum laude*)
Rabakali, Takalani Constance (Environmental Management)
Rozani, Akhona Somila (Environmental Management)
Rulashe, Thabiso Spencer (Futures Studies)
Smith, Molelekoa (Futures Studies)
Steyl, Johannes Jacobus (Management Coaching)
Strauss, Rolene (Management Coaching) (*cum laude*)
Strauss, Stephanie Junitha (Environmental Management)
Treu, Andrew John (Management Coaching)
Troskie, Janine Nanda (Management Coaching)
Van Heerden, Michelle (Management Coaching)
Van Niekerk, Toni (Futures Studies)
Van Tonder, Andries Jacobus (Futures Studies)
Van Zyl, Wynandina Petronella Johanna (Management Coaching)
Varghese, Elizabeth Susan (Sustainable Development Planning and Management) (*cum laude*)
Wilson, Theresa Faith (Management Coaching) (*cum laude*)

Magister in die Wysbegeerte in Ontwikkelingsfinansies Master of Philosophy in Development Finance

Chegovo, Bothwell Munyaradzi
Dhotman De Villiers St Pol, Dominique Gerard (*cum laude*)
Dudzayi, Daina
Haipumbu, Ndapewoshali Natalia
Ikela, Sam Nduvundi
Keeja, Patricia
Maluleke, Vusi William
Mfengwana, Yonwaba
Mndzebele, Siphilele Thobekile
Mofokeng, Tlaleng Andronica
Mohulatsi, Sinah Matshidiso
Mphake, Richard Karabo
Msipho, Siphilwe Thembinkosi
Mthimkhulu, Percy
Ncube, Gugulethu Mamoeketsi
Ndaba, Sifiso Floyd
Ndzinisa, Phetsile
Ngcume, Siyanda
Nkwanyana, Nonkululeko
Ozulumba, Ijeoma (*cum laude*)
Pitlo, Dipitsi Ernest
Weer, Tebogo

Magister in Besigheidsbestuur en -administrasie Master of Business Management and Administration

Adenigba, Joseph
Anderson, Neil Trevor
Andrews, Aurion Patrick
Arendse-Trantraal, Lauren Lyrun
Basson, Anne Petronella
Blaauw, Ivor Carl
Blair, Caitlin (*cum laude*)
Böcking, Frank
Bosman, Christiaan Jacobus
Botha, Albertus Lambertus
Bruwer, Pieter Burger (*cum laude*)
Cattell, Olga Matilda
Conradie, Pieter Jacobus (*cum laude*)
Cronjé, Christiaan Stephanus
Cuijpers, Rob Cornelius
De Lange, Nicolette
De Villiers, Jan Naudé
De Wit, Frederick Christiaan Pieter (*cum laude*)
Dean, Alicia Eleanor (*cum laude*)
Diergaardt, Vincent Jaun
Dippenaar, Tanya
Dirkse Van Schalkwyk, Johannes Jurgens (*cum laude*)
Dramat, Tanya
Dube, Simbarashe Mushmabi
Eckley, Alfred Collins
Elliott, Shane Roy
Enous, Zahraa
Erasmus, Desiderius
Ferreira, Jacques
Foster, Lanston Joseph
Gerber, Henre Jacobus
Gilbert, Beverly Nonhlanhla
Gimenez, Claudio
Gqola, Vuyokazi Tankiso
Hempel, Wayne (*cum laude*)
Hendrickx, Jef
Heynes, Edward David (*cum laude*)



Holton, Lisa Emily (*cum laude*)
 Hove, Tatenda Caston
 Isaacs, Baduroen
 Jacobs, Jan Gerhardus (*cum laude*)
 Jakoet, Nazliyah
 Jansen, Donovan
 Jansen Van Vuuren, Tiaan Jacobus
 Kathanya, Nonhlanhla
 Kellerman, Arend Paul
 Kleynhans, Theodorus Ernst
 Kruger, Johannes Lodewykus
 Landman, Jacobus Daniel Cillié
 Le Riche, Nicole Claire
 Lepota, Tumelo
 Lindenberg, Josh
 Loff, Kyle (*cum laude*)
 Lombard, Juan-Pierre
 Maass, Petrus Frederik
 Mailula, Sello
 Manne, Graeme Rubin
 Manyatsi, Sindi Masiza (*cum laude*)
 Marais, Wilhelmina Christina (*cum laude*)
 Marallich, Christo (*cum laude*)
 Masinge, Michaeline Mpho
 Masuku, Edith Prudence
 Mbaha, Vesoraune
 Mogano, Tshepo Jack
 Moodley, Nerisa (*cum laude*)
 Motse, Bongwiwe Princess
 Mumba, Vitumbiko Augeans Zsamula
 Muthu, Kugin (*cum laude*)
 Myburgh, Wilbé
 Ndlovu, Thamsanqa
 Nel, De Wet (*cum laude*)
 Nel, Morne (*cum laude*)
 Nels, Jamie-Lee Sheena
 Ngalo, Vera Sinazo
 Ngcobo, Nomvelo Phumla
 Ngidi, Sithembile
 Ngubo, Mamela
 Ntshiea, Maletsatsi
 Nyundu, Johannes Frans
 Omolo, Joshua
 Owen-Frigyik, Talia Janine
 Pahad, Seraj
 Patesi, Philasande
 Pillay, Tashweree
 Pretorius, Johannes Jacobus
 Prinsloo, Lourens Stephanus
 Pule, Saltiel
 Putzier, Quintin Dean
 Radebe, Nontsikelelo
 Rajie, Zubeida (*cum laude*)
 Ramalingam, Sathieseelan
 Ramchund, Terusha (*cum laude*)
 Ramoshaba, Bridget Tumelo Nono
 Reed, Charlene
 Roostee, Denille
 Rootman, Adriaan Cornelius (*cum laude*)
 Ruiters, Wensia Cathrene
 Schade, Johannes Petrus
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 Tjueza, L'oreal Danica Golda

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 Wessels, Louis Jacobus
 White, Gys Jacques
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 Meyer, Ronel
 Sango, Nolubabalo

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 Kilala, Nadine Deryck (Public and Development Management)
 Love, Joshwin Jumario (Public and Development Management)
 Matlali, Precious Elellwang (Public and Development Management)
 Verwey, Ignatius Michael (Public and Development Management)
 Viljoen, André (Public and Development Management)

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Dlamini, Mzokhona Brian
Freyer, Franco Marcellino
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Jacobs, Monean Nelzaan
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Sepeng, Percy Naledi
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Slaai, Jamy-Lee

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Nase, Babalwa Ernestine

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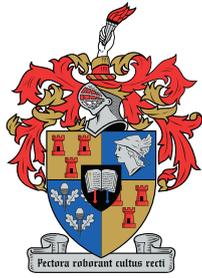
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