

## PROGRAM VIR DIE TWEEDE PLEGTIGHEID

### *DIE FAKULTEITE LETTERE EN SOSIALE WETENSKAPPE, OPVOEDKUNDE, REGSGELEERDHEID, TEOLOGIE, GENEESKUNDE EN GESONDHEIDSWETENSKAPPE*

*'n Vriendelike beroep word op alle aanwesiges gedoen om selfone af te skakel en nie die saal tydens die plegtigheid te verlaat nie en sodoende te verseker dat die verrigtinge sonder ontwrigting verloop.*

1. Akademiese prosesie kom die saal binne. U word versoek om te staan terwyl hulle die saal binnekom en te bly staan vir die sing van die Nasionale Lied.
2. Sing van die Nasionale Lied (kyk binneagterblad). Neem asseblief daarna u sitplekke in.  
Begeleiding: Universiteit Stellenbosch Koperblasensemble.  
Orrelis: Brent Reynolds.  
Voorsanger: Lunathi Ncumani.
3. Konstituering deur die Viserektor (Navorsing, Innovasie en Nagraadse Studie).
4. Verwelkoming deur die Viserektor (Navorsing, Innovasie en Nagraadse Studie) en dr NS Cezula.
5. Voorstelling van doktorandi deur die dekane van die betrokke fakulteite en toekenning van grade deur die Viserektor (Navorsing, Innovasie en Nagraadse Studie).
6. Sluiting deur die Viserektor (Navorsing, Innovasie en Nagraadse Studie).
7. Akademiese prosesie verlaat die verhoog.

*Die aanwesiges word versoek om te bly staan totdat die akademiese prosesie uitgestap het.*

## PROGRAMME FOR THE SECOND CEREMONY

### *THE FACULTIES OF ARTS AND SOCIAL SCIENCES, EDUCATION, LAW, THEOLOGY, MEDICINE AND HEALTH SCIENCES*

*To help ensure that the proceedings run their course without disruption, will all those present kindly keep their cell phones switched off, and refrain from leaving the hall, while the ceremony is in progress.*

1. Entrance of academic procession into the hall. You are requested to stand while it enters, and then to remain standing for the singing of the National Anthem.
2. Singing of the National Anthem (see inside back cover). Thereafter, please be seated.  
Accompaniment: University of Stellenbosch Brass Ensemble.  
Organist: Brent Reynolds.  
Precentor: Lunathi Ncumani.
3. Congregation formally constituted by the Vice-Rector (Research, Innovation and Postgraduate Studies).
4. Welcome by the Vice-Rector (Research, Innovation and Postgraduate Studies) and Dr NS Cezula.
5. Presentation of doctoral candidates by the deans of the respective faculties and conferment of degrees by the Vice-Rector (Research, Innovation and Postgraduate Studies).
6. Closing by the Vice-Rector (Research, Innovation and Postgraduate Studies).
7. The academic procession leaves the stage.

*Those present are requested to remain standing until the entire academic procession has left the hall.*

# ISICWANGCISO-NKQUBO SOMSITHO WESIBINI

## IIFAKHALTHI EYEATHSI NEENZULULWAZI ZOBUNTLALONTLE, EYEZEMFUNDO, EYEZOMTHETHO, EYEZENKOLO, EYEZAMACHIZA NOBUNZULULWAZI KWEZEMPILO

*Ukuqinisekisa ukuba umsitho uqala ngaphandle kwesiphazamiso, bonke abakhoyo bayacelwa ukuba bacime iiselfowuni zabo, kwaye bangaphumi eholweni ngeli xesha umsitho uqhubekayo.*

1. Kungena umkhosi wemithika eholweni. Niyacelwa ukuba nime ngeenyawo xa ungena, nihlale nime njalo ukuze kuculwe uMhobe weSizwe.
2. Kukulwa uMhobe weSizwe (Jonga kumphakathi weqweqwe lokugqibela). Emva koko, ningahlala phantsi.  
Umculo: yi-University of Stellenbosch Brass Ensemble.  
Umdlali wohadi: nguBrent Reynolds.  
Umhlabeli: nguLunathi Ncumani.
3. UMsitho uvulwa ngokusesikweni nguSekela-Nqununu (wezoPhando, izinto ezintsha neZifundo zaBasele beneZidanga).
4. Ulwamkelo lwenziwa nguSekela-Nqununu (wezoPhando, izinto ezintsha neZifundo zaBasele beneZidanga) noGqr NS Cezula.
5. Ukwaziswa kwabafundi bezidanga zobugqirha ziintloko zeefakhalthi (iiDin) ezichaphazelekayo nokuthweswa kwezidanga nguSekela-Nqununu (wezoPhando, izinto ezintsha neZifundo zaBasele beneZidanga).
6. Ukuvalwa koMsitho nguSekela-Nqununu (wezoPhando, izinto ezintsha neZifundo zaBasele beneZidanga).
7. Umkhosi wemithika uyalishiya iqonga.

*Bonke abakhoyo bayacelwa ukuba beme ngeenyawo de umkhosi wemithika ube uphume wonke eholweni.*

## KANDIDATE WAT KWALIFIKASIES ONTVANG

Hier volg 'n lys van graduandi met hul studierigtings, proefskriftitels en opsommings van die navorsing. Die grade van graduandi wat nie by die gradeplegtigheid teenwoordig kan wees nie, word in hulle afwesigheid toegeken.

## CANDIDATES RECEIVING QUALIFICATIONS

Here is a list of graduands with their fields of study, dissertation titles and summaries of research. The degrees of graduands who are unable to attend the graduation ceremony are awarded in absentia.

## ABAFUNDI ABAFUMANA IZINGQINI ZEZEMFUNDO

Apha kulandela uluhlu lwabathweswayo kwiinkalo zesifundo, izihloko zeedizetheyishini kunye nezishwankathelo zophando. Izidanga zabathweswayo abangakwazanga ukubakho ubuqu kumsitho wothweso-zidanga bathweswa bengekho benjalo.

### **Fakulteit Lettere en Sosiale Wetenskappe**

### **Faculty of Arts and Social Sciences**

### **IFakhalthi yezeAthsi neeNzululwazi zobuNtlalontle**

#### **PhD**

ANDRASON, Alexander (African Languages)

*A complex system of complex predicates: tense, taxis, aspect and mood in Basse Mandinka from a grammaticalisation and cognitive perspective*

The present work analyses the Basse Mandinka tense-taxis-aspect-mood verbal system within the framework of cognitive and grammaticalisation linguistics and from the perspective of complexity theory. The candidate builds his study by perusing the objectives of, among others (a) a description of the entire semantic potential of all the Basse Mandinka verbal grams; (b) a representation of the synchronic inventories of senses of each Basse Mandinka verbal construction as a coherent phenomenon; (c) an introduction of the information concerning the prototypicality of the map and the development of a representation of the meaning as a wave; and (d) a modelling of the entire Basse Mandinka verbal organisation into a system of currents.

*Supervisor:* Prof MW Visser

BAYIGA, Florence Tendo (General Linguistics)

*Profiles of multilingualism in Kampala: an analysis of language biographics and linguistic repertoires of university students*

This sociolinguistic study investigated the language biographics and repertoires of young adults in Kampala, Uganda, to disclose pertinent aspects of the multilingualism extant among students at a tertiary educational institution. The study highlights the difficulties of applying standard definitions of bilingualism and multilingualism to speakers and communities in an African country with highly diverse and mobile multilingual populations. The findings explain much of the communicative practices encountered among students, particularly showing how the official and social status of local languages contribute to the

development of linguistic resources for their use in academic and professional domains.

*Supervisor:* Prof C Anthonissen

*Co-supervisor:* Dr O van Dulm

CAPRI, Charlotte Henriette (Psychology)

*Thinking about intellectual disability care: an intersubjective approach*

Disabling care continues to confront South African individuals who live and work with intellectual disability. Intellectual impairment care can be conceptualised as more than the performance of tasks involving giving and receiving, but can be understood as intersubjective and relational person-making exchanges that also unfold in broader socio-political spaces. This study introduces fresh perspectives on psychiatric intellectual disability care by bringing together the fields of relational psychoanalysis, intersubjectivity, and contemporary models of disability. In such intersubjective spaces the experience of impairment can be voiced by the *real* experts – those who live and work with intellectual impairment in a disabling world.

*Supervisor:* Prof LP Swartz

COX, Alexia Georgina (English Studies)

*The application and modification of human resource management in the critical analysis of fiction: Harry Potter as case study*

This dissertation revisits the much discredited idea of a “common sense” way of reading a literary text. It proposes that a common sense reading – one that treats narrative fictions as reflections of the real world, and that focuses on the didactic message of the story – can provide particular kinds of insights about social life. To this end, it enlists human resource management as a tool for literary analysis and for exploring common sense assumptions about human behaviour in the context of neoliberal Western culture. It advances this proposition through a reading of JK Rowling’s *Harry Potter* series.

*Supervisor:* Dr D Roux

DE VILLIERS, Annemarie (Classical Literature)

*Catullus decentred: the poetics of the periphery*

This dissertation presents a careful analysis of the identity of the Roman poet Catullus, who did not quite fit the cultural environment in which he lived, even when he ostensibly bought into the prevailing culture completely. The impact of the unintended marginalisation suffered by such a person is carefully documented. Given the large scale movements of peoples in the global community with its inevitable impact on the individual's experience of identity, the findings of this study contribute significantly to the understanding of the complexity of the topos of identity, and the role of poetry in negotiating such an identity.

*Supervisor:* Dr S Thom

*Co-supervisor:* Prof JC Thom

FUSEINI, Issahaka (Geography and Environmental Studies)

*Urban governance and spatial planning for sustainable development in Tamale, Ghana*

Urban governance and spatial planning are crucial for sustainable urban development in the 21st century. The candidate's study contributes to this by investigating urban governance practices and outcomes in Tamale, Ghana, regarding provision of and access to urban infrastructure and basic services. The results showed that Tamale's growth has been phenomenal, but access to urban infrastructure and services lagged behind, and there was limited stakeholder engagement in urban governance. The study recommends efforts to reform urban governance laws and initiatives to engender participatory and partnership-based governance and service delivery in the city to achieve social justice, economic viability and environmental health and sustainability.

*Supervisor:* Dr JN Kemp

GARDNER, Jillian Brigette (Philosophy)

*Moral responsibility for prenatal harm to children: the case of Fetal Alcohol Syndrome*

This dissertation considers the ethical-legal aspects of Fetal Alcohol Syndrome (FAS) in South Africa. At the level of individual morality it defends a position that pregnant women who have the legal option to terminate a pregnancy, by deciding to continue a pregnancy, have *prima facie* moral obligations to not harm the fetus, which entails an obligation to abstain from alcohol during pregnancy. On the social level, it considers the legitimacy and effectiveness of punitive approaches and delictual action to prevent FAS. Punitive approaches are found undesirable, whereas a policy of allowing children with FAS to sue their mothers is equally ineffective at preventing FAS.

*Supervisor:* Prof AA van Niekerk

KIGURU, Doseline Wanjiru (English Studies)

*Prizing African literature: awards and cultural value*

This study investigates the centrality of international literary awards in African literary production with an emphasis on the Caine and the Commonwealth Short Story Prizes. The major focus of the dis-

sertation is the process through which contemporary African literature, mediated through the international prize, acquires value in the global literary marketplace.

*Supervisor:* Dr M Slabbert

*Co-supervisor:* Dr D Roux

LOOTS, Sonja (Afrikaans en Nederlands)

*Ensiklopediese fiksie in die oeuvre van Marlene van Niekerk*

Die proefskrif handel oor die voorkoms van ensiklopediese elemente in die romans van Marlene van Niekerk. Die ensiklopediese fiksiegenre word bespreek teen die agtergrond van Verligtingsera-ensiklopedisme en die fiksie van vroegmoderne skrywers soos Miguel de Cervantes, Francois Rabelais, Robert Burton en Laurence Sterne. Oeuvrepatrone in Van Niekerk se werk word herlei na hierdie eeue-oue antesedente en aan die hand van teoretiese bydraes deur onder andere Northrop Frye, Edward Mendelson en Mikhail Bakhtin ontleed. Die klem val op hoe Van Niekerk oorgeërfde tradisies in lokale konteks uitdaag en wysig. Dit word beskou as deel van 'n komplekse kreatiewe en politieke gebaar.

*Promotor:* Prof L Viljoen

MARTENS, Peter (Music)

*Contemporary performance of the sonatas for cello and piano by Ludwig van Beethoven as informed by Carl Czerny*

Peter Martens' work is a ground-breaking contribution to the fledgling field of practice-based research in music. It demonstrates in an exemplary manner how the fields of rigorous scholarly enquiry and high-level musical performance can be made to complement one another in order to generate new knowledge. By examining sources very close to the composer, the candidate not only makes a solid argument for performing Beethoven's six sonatas for piano and cello in a way that comes close to reflecting the composer's intentions in respect of tempo, but he also made an award-winning recording of these works himself.

*Supervisor:* Prof WA Lüdemann

MILLIN, Tracey Jane (General Linguistics)

*Scaffolding academic literacy using the reading-to-learn methodology: an evaluative study*

A literacy development programme developed in Australia to support the educational success of marginalised learners was introduced to grade 11 learners in two Western Cape schools over a period of six months. Relying on recent work which confirms a correlation between literacy performance at school, social conditions and educational practices, this study checked for measurable outcomes in selected academic writing conventions. From a cross-sectional perspective (across schools) the greatest overall improvement was among the weaker cohort of students from the school in a low socio-economic area. Similar greater overall gains of initially weaker students were also evidenced from a time series (within school) perspective. This indicates a possible convergence (or 'catch-up') effect for learners who showed a lag in pre-intervention testing.

*Supervisor:* Prof C Anthonissen

MKWESHA, Faith (English Studies)

*Zimbabwean women writers from 1950 to the present: recreating gender images*

The study focuses on Zimbabwean women as writers and as producers, contesters and negotiators of gendered images, and the ways in which they write gender identities in and of the nation. The questions which the dissertation explores include: What role do women as writers and characters play in the construction and redefinition of their images and those of their male counterparts? In what ways do these representations of gender participate in the (re)imagining of the nation? This study explores the rebellious questing heroine who stakes all on the attainment of individuality and freedom in contexts of powerful patriarchies.

*Supervisor:* Dr NJ Bangeni

*Co-supervisor:* Prof MA Samuelson

MOKHELE, Masilonyane (Geography and Environmental Studies)

*Spatial economic attributes of airport-centric developments at Cape Town and Johannesburg*

The study contributes towards a better understanding of the locations and driving forces behind airport and airport-centric developments at Cape Town International and OR Tambo airports. The study, (i) established the mix and reasons for the locations of firms on and around the two airports; (ii) identified and analysed the propulsive qualities of land uses in the areas; (iii) analysed the economic and structural linkages between firms on the airports and their surrounding areas within metropolitan, regional, national and international contexts; and (iv) studied the changes that have occurred in the airport and airport-centric developments of the two airports over time.

*Supervisor:* Prof HS Geyer

MORODI, Thabiso John (Philosophy)

*The precautionary principle and public environmental decision making in South Africa: an ethical appraisal*

How does society make decisions about environmental risks when confronted with complexity and scientific uncertainty? This dissertation investigated how the precautionary principle can be conceptualised and applied in concert with other decision-making methods such as qualitative risk assessment to prevent, and sometimes also to address, human-induced environmental catastrophes. This approach was tested in a case study of acid mine drainage (AMD) in South Africa and it was found that the precautionary principle can help to overcome expert bias in environmental decision making that can fail to prevent environmental catastrophes, and often excludes lay people, indigenous knowledge, affected parties and marginalised groups.

*Supervisor:* Prof JP Hattingh

NEVHUTALU, Helen Khanyisa (Philosophy)

*Patients' rights in South Africa's public health system: moral-critical perspectives*

This dissertation critically investigated the nature, status and efficacy of the application of patients' rights in the context of public health care in

South Africa (particularly public hospitals in urban settings). Perspectives on the core of patients' rights – the moral principles of autonomy, respect, informed consent, and confidentiality and privacy – were discussed in detail. An ethics audit of the Chris Hani Baragwanath Hospital was done to identify key problems hindering the realisation of patients' rights, leading to wide-ranging recommendations to various stakeholders, such as the national Department of Health, provincial health departments, professional associations and regulatory bodies, community-based organisations and non-governmental organisations to overcome these obstacles.

*Supervisor:* Prof JP Hattingh

VAN DEN BERG, Estelle (Sielkunde)

*Die identifisering, beskrywing en riglyne vir die ontwikkeling van veerkragtigheidskenmerke in gesinne waarvan 'n ouer alkohol misbruik: 'n gesinsperspektief*

Ten spyte van die negatiewe impak wat ouerlike alkoholmisbruik op gesinne kan hê, is sommige gesinne in staat om suksesvol daarby aan te pas. Die hoofdoelstelling van hierdie ondersoek was om vas te stel watter gesinskenmerke geassosieer kan word met goeie aanpassing van gesinne. Die sekondêre doelstelling was om op grond van hierdie kenmerke riglyne neer te lê aan die hand waarvan gesinne gehelp kan word om alkoholmisbruik te hanteer. Positiewe gesinskenmerke is gesinsprobleem-oplossingskommunikasie, gesinstyd en -roetines, godsdiens, ondersteuning van gemeenskapshulpbronne en sosiale ondersteuning. 'n Intervensieprogram behoort op hierdie kenmerke te fokus en moet langdurig en deurlopend wees, terwyl gesinslede ook rehabilitasie, berading of terapie ontvang.

*Promotor:* Prof AP Greeff

VAN DIJK, Renate Marian (Ancient Studies)

*The form, function and symbolism of standards in Ancient Mesopotamia during the third and fourth millennia BCE: an iconographical study*

Standards (a long shaft with a sign or emblem attached to the top; held or standing on the ground) are represented in Mesopotamia from the fourth millennium until the first millennium BCE. This study examines how standards are depicted in the iconographic record of the third and fourth millennia BCE by examining their form, function and symbolism. These examples are presented and compared, and commonalities and differences are identified and examined. Standards can function as battle standards, divine standards, royal standards, city standards, architectural standards, and standards in ritual contexts and judicial procedures.

*Supervisor:* Prof I Cornelius

VENTER, Gustav Barend (History)

*Gone and almost forgotten? The dynamics of professional white football in South Africa, 1959-1990*

This study contributes to the emerging literature on sport and society in South Africa by exploring historical changes in the demographics of professional soccer. Through extensive archival work, contemporary media material and oral sources, it examines the political, economic

and social factors which impinged on white professional soccer under apartheid. Moreover, it provides a conclusive analysis of the variety of forces that account for the disappearance of the whites-only National Football League as well as the way in which certain clubs struggled for survival in the new environment ushered in by political changes in the country.

*Supervisor:* Prof AM Grundlingh

VERGUNST, Richard (Psychology)

*Access to health for persons with disabilities in rural Madwaleni, Eastern Cape, South Africa*

There is a paucity of research in South Africa examining the impact of the combined vulnerabilities of poverty, rurality and disability. This study used a quantitative survey method to explore the challenges experienced by persons with disabilities, both in their day-to-day living and in access to health care in Madwaleni, a poor rural isiXhosa-speaking community in South Africa. Results suggest that persons with disabilities in Madwaleni experience more problems in terms of daily living and health compared to persons with no disabilities. Recommendations for the future are discussed in order to suggest some concrete and practical solutions.

*Supervisor:* Prof LP Swartz

VIVIERS, Etienne (Music)

*A critique of the survival anxieties that inform South African discourses about Western art music*

This study investigates how Oswald Spengler's and Arnold Toynbee's anxious theories about civilisation's decline and survival have impacted on South African discourses about Western art music. The case studies that demonstrate a resultant and enduring obsession with the *voortbestaan* of "white" musical culture in South Africa include the following: JM Coetzee's writings on Bach, the apartheid-era national anthem's situatedness inside the landscape of Bloedrivier, the reception discourse of Hendrik Hofmeyr's *Sinfonia africana*, and Winfried Lüdemann's inaugural lecture petition for the institutional safekeeping of "Western" and "South African" art music at the Stellenbosch University Music Department.

*Supervisor:* Prof SJvZ Muller

## **Fakulteit Opvoedkunde**

### **Faculty of Education**

#### **IFakhalthi yezeMfundo**

##### **PhD**

DORFLING, Pieter Stephanus (Educational Psychology)

*A knowledge network model for teachers supporting learners with disabilities in an inclusive education system*

Teachers play an important role in implementing inclusive education. However, their role is often compromised by their perceived inadequate knowledge and competence to provide quality education to all

children, especially those with disabilities. This study employed a mixed-methods research design to determine the current use of knowledge management in inclusive education, describe the knowledge and skills that teachers need to teach and support children with disabilities, and develop and evaluate a knowledge network model for teachers' continuous personal professional learning. The candidate proposed a Personal Continuous Knowledge Development (PCKD) model as a conceptual model for teachers teaching children with disabilities. The model contributes to an improved understanding of the potential use of knowledge management in preparing and supporting teachers to include children with disabilities in their classrooms.

*Supervisor:* Prof E Swart

*Co-supervisor:* Prof E Schwella

EDWARDS, Nazeem (Curriculum Studies)

*Using design-based research to analyse the development of an inquiry-based approach for teaching direct current electricity to pre-service teachers*

This study uses a design-based research (DBR) approach to develop pre-service science teachers' (PSSTs) conceptual understanding in the domain of direct current electricity. A transformative conjecture-driven teaching experiment was conducted with three cohorts of PSSTs from 2011 to 2013. The findings show that an inquiry-based science teaching approach can help to foster a better conceptual understanding of direct current electricity with varying degrees of success. An important design principle to emerge is that inquiry-based science teaching strategies are effective only when integrated with traditional expository teaching strategies, aimed to develop students' conceptual understanding of direct current electricity.

*Supervisor:* Prof LL le Grange

FAASEN, Marinda (Curriculum Studies)

*A learning design framework for active learning using audience response systems*

The aim of this study was to analyse the use of audience response activities to promote active learning, and to map out strategies for the most effective use of audience response technology. Using activity theory as analytical lens, the candidate interpreted the data gathered from lecturers and students in the following five courses at Stellenbosch University: Chemistry, Biochemistry, Logistics, Mathematics Education and English Education. The candidate proposes an integrated approach, including aspects of instructivism and constructivism to the design of audience response activities. The framework developed by the candidate encompasses a process and design model and the study highlights the importance of immediate feedback and motivation for audience response activities to promote active learning.

*Supervisor:* Prof M Fourie-Malherbe

*Co-supervisor:* Prof JC Cronje

FELDMAN, Jennifer Ann (Education Policy Studies)

*Eliciting pedagogical learning among teachers in a professional learning community*

Presented in article format, this dissertation is based on practice-based research that focuses on a group of teachers' pedagogical learning in a

professional learning community (PLC). The PLC was run over a two-year period, informed by a social justice approach to pedagogical learning. Drawing on Bourdieu's thinking tools, the dissertation develops a conceptualisation of habitus engagement and teachers' pedagogical habitus to understand the constraints and possibilities of teachers' pedagogical adaptation and change. The study concludes by arguing that PLC dialogue, as a form of habitus engagement, must engage with the teachers' embodied pedagogical habitus in order to effect sustained change in their pedagogical practices.

*Supervisor:* Prof A Fataar

KASSIM, Alimi Yau (Curriculum Studies)

*Perceptions of pre-service teachers in Foundation Phase Mathematics about their professional development*

This study investigated prospective Foundation Phase Mathematics teachers' perceptions on professional development at the beginning and end of their 3<sup>rd</sup> academic year. Qualitative and quantitative strategies were used to collect data. Analysis of this data gave detailed information. Findings from both strategies were merged to reveal confirmatory and contradictory views of the participants. The participants perceived remarkable improvements in like: overcoming their feelings of incompetence to engage in problem-solving activities; understanding of how to assist learners to make connections between ideas and strategies in solving problems; and understanding of how to access and assess learners' thinking and comprehension.

*Supervisor:* Prof DCJ Wessels

MATIMBO, Fulgence John (Higher Education)

*Towards understanding programmatic quality in private universities in Tanzania*

Private higher education in Tanzania has grown exponentially. Questions arose, however, as to the quality of the undergraduate degrees private universities offer. The study explored institutional internal quality assurance processes that formed part of a larger quality assurance project in East Africa. It analysed the use and application of the quality concept in undergraduate programmes at five private universities to better understand how these universities interpret and apply the quality concept. By suggesting a conceptual framework for programmatic quality, the study contributed to an improved understanding of how private universities interpret and use the concept of quality in undergraduate programme self-evaluation, which has direct implications for the implementation of programme quality assurance in Tanzania.

*Supervisor:* Prof EM Bitzer

McCREANOR, Christopher Paul Andrew (Curriculum Studies)

*A curriculum framework for the professional development of corporate social responsibility practitioners in South Africa*

This study investigated the core competencies needed by corporate social responsibility (CSR) practitioners in businesses in South Africa. It is common knowledge that decisions about corporate social responsibility are often made by persons who have little background in or

training for this area of work and practice. The proposed framework emerged from extensive work with corporate officials, academics and CSR practitioners and was validated through several research cycles. For the first time in CSR literature in South Africa this research suggests a framework which may serve as a guideline for curriculum designers and policy makers when considering the design, development and implementation of entry-level to mid-career CSR practitioner programmes or qualifications.

*Supervisor:* Prof EM Bitzer

*Co-supervisor:* Prof PGW Jansen

NAUKUSHU, Shiwana Teeleleni (Curriculum Studies)

*A critical theory enquiry in the development of number sense in Namibian first-year pre-service secondary Mathematics teachers*

The candidate's pragmatic study used a mixed-methods approach to enquire into the efficacy of a Critical Theory intervention to enhance pre-service secondary Mathematics teachers' number sense competences. Using a concurrent format of the mixed-methods design and a five-tier number sense instrument multilinear regression analysis, yielded statistically significant differences as well as large effect sizes in which a randomly selected experimental group of 30 outperformed a control group of 30 in both number sense proficiency and reasoning. Qualitative analysis revealed significant improvements in the quality of responses to number sense items on both reasoning and proficiency variables.

*Supervisors:* Prof M Ndlovu and Dr F Gierdien

ORR, David (Curriculum Studies)

*Higher education strategic partnerships: the impact of Stellenbosch University's community interaction agreements on local development*

This research study was designed to measure the impact of Stellenbosch University's interaction agreements with the local surrounding communities. The research highlighted current local public policy practices of Stellenbosch University's interaction with the surrounding community. From the study results, a new integrated conceptual framework was proposed to capture the full socio-economic impact of higher education institutions. Furthermore, the 2012-2013 data illustrated that Stellenbosch University has a substantial social and economic impact on the surrounding municipalities of Stellenbosch and Drakenstein. Additionally, the findings include a list of social and economic performance indicators related to the University's community engagement and economic development efforts.

*Supervisor:* Prof R Newmark

OWUSU-AGYEMAN, Yaw (Curriculum Studies)

*The relevance of telecommunications and electrical engineering programmes to the needs of adult learners in Ghana*

The study investigated the relevance of telecommunications and electrical engineering programmes to the needs of adult learners at three diverse universities in Ghana. Framed along an interpretive paradigm, relative ontology, transactional epistemology and embedded multiple case study methodology, an integrated constructivist model was proposed for developing telecommunications and electrical

engineering programmes for adult learners. The study revealed that while various learning theories may be appropriate when designing programmes for adult learners in engineering, constructivism, when amplified by other theories such as transformative, behavioural and experiential learning, provides effective pedagogic methods that enhance the knowledge and skills of adult learners.

*Supervisor:* Prof M Fourie-Malherbe

*Co-supervisors:* Prof L Frick and Dr DMO Adjin

PETERS, Barbara Ilona (Curriculum Studies)

*Realistic Mathematics education and professional development: a case study of the experiences of primary school Mathematics teachers in Namibia*

This study reports on the experiences of primary school Mathematics teachers in a school in Namibia. The teachers participated in a professional development (PD) project based on realistic Mathematics education (RME) and lesson study principles, which aimed at improving subject knowledge as well as teaching. Data was collected over a period of three school terms. Findings show that the teachers were positively disposed towards the use and development of RME-based materials. The study concludes with the importance of PD in general and the need for collaboration between the teachers and Mathematics educators from the University of Namibia.

*Supervisor:* Dr F Gierdien

#### **(PhD Sport Science)**

FRYER, Bradley James (Sport Sc)

*A community-based lifestyle intervention programme for adults with type 2 diabetes mellitus in a low socio-economic status community*

Community-led lifestyle interventions have shown promise in combating T2DM and other lifestyle diseases; however, there is a paucity of data on comprehensive lifestyle interventions in communities of low socio-economic status (SES) in South Africa. This study investigated the effectiveness of a low-cost, community-based, 10-week lifestyle intervention on physiological, psychological and health-related outcomes in adults with T2DM in a low SES community. The programme significantly improved various health-related parameters, functional exercise capacity, most aspects related to quality of life, as well as dietary habits and lifestyle behaviours. This study showed that a low-cost, easy-to-implement lifestyle programme can significantly assist the primary health care sector in the management and prevention of T2DM in under-resourced communities.

*Supervisor:* Prof E Terblanche

## **Fakulteit Regsgeleerdheid**

### **Faculty of Law**

#### **IFakhalthi yezoMthetho**

##### **LLD**

DURHAM, Carryn Melissa (Private Law)

*Comparative perspectives on the role of the trustees and the managing agent as dramatis personae in the governance of sectional title schemes in South Africa*

This dissertation concerns the day-to-day management of a sectional title scheme by the trustees and a managing agent. The majority of trustees must be owners; they need no specific qualifications nor special knowledge of sectional title management. They work for love and charity and are only liable for gross negligence. The managing agent who provides the necessary management skills is basically considered to be a mere employee. Therefore the candidate proposes that the position of the managing agent should be elevated to that of a professional manager who would be liable for professional negligence in the performance of his functions and that the trustees should perform a mere advisory and monitoring function.

*Supervisor:* Prof CG van der Merwe

KARJALA, Tuuli Maria (Public Law)

*Sixty years of silence: gender discrimination under international refugee law*

This dissertation argues that the definition of 'refugee' under international refugee law is obsolete and in dire need of reconceptualisation in order to adequately encompass the unique persecution that women face because of their gender. It seeks to establish the reasons behind the inadequate protection of victims of gender-related persecution. To examine this question, a detailed analysis of various aspects that have an impact on the interpretation and implementation of the international refugee law framework was carried out. As a result of this analysis, this dissertation reveals how the patriarchal nature of the international law regime as a whole has had a negative impact on gender-related asylum claims.

*Supervisor:* Prof EAB Rudman

MAGASHI, Salim Bashir (Public Law)

*The human right to development in Nigeria*

This dissertation examines the role of the right to development as a tool for genuine human development in Africa and specifically in Nigeria. It analyses the legal character of the right from the international, regional and domestic legal perspectives. This dissertation argues that the right to development is a human right capable of enforcement in Nigeria. Its enforceability is found within the Nigerian legal system itself through international and domestic legal arrangements. Similarly the dissertation notes that, aside from the justiciability of the right, good governance, legislative and development planning approaches can aid the effective realisation of this right.

*Supervisor:* Prof EAB Rudman



## **Fakulteit Teologie**

### **Faculty of Theology**

#### **IFakhalthi yezeNkolo**

##### **PhD**

BANDA, Collium (Systematic Theology)

*Empowering hope? Jürgen Moltmann's eschatological challenge to ecclesiological responses in the Zimbabwean context of poverty*

In search of an empowering ecclesiological-ethical framework in response to poverty, Banda analyses Moltmann's eschatological theology in terms of the historicity of the trinitarian God of hope, the kingdom of God that promotes the restoration of life and the communality of the church of hope. Criticising the responses of both the colonial and prosperity churches in the history of Zimbabwe, the metaphor of the church as an African kraal is employed discerningly. Hence the historicity of God becomes a place for human capacitation of the poor and the kingdom calls for a public-theological model that rejects the church's co-option by the ruling elite.

*Supervisor:* Dr IJ van der Merwe

FORTEIN, Eugene André (Ekklesiologie)

*Allan Boesak en die Nederduitse Gereformeerde Sendingkerk: 'n teologies-historiese ondersoek*

Die hoofokus van hierdie studie val op die rol wat Allan Boesak van 1976 tot 1990 as predikant van die Nederduitse Gereformeerde Sendingkerk (NGSK) binne dié kerk, sowel as binne die breër kader van die kerkstryd teen apartheid, gespeel het. As teologies-historiese ondersoek ontleed die proefskrif 'n aantal sleuteltekste om aan te toon hoe Boesak insigte vanuit bevrydingsteologie, swartteologie en Gereformeerde teologie ontgin en met mekaar verbind het om 'n "teologie van profetiese weerstand" te ontwikkel. Hierdeur het Boesak 'n sleutelrol gespeel om 'n belangrike teologiese wending ten opsigte van apartheid binne die NGSK, asook in sekere ekumeniese kringe, te bring.

*Promotor:* Prof RR Vosloo

HASSAN, John (Missiology)

*Mission as prophetic dialogue in Christian-Muslim encounters, Northern Nigeria*

Religious conflicts and responses of religious adherents have influenced practices of peace-building and reconciliation in Northern Nigeria. This dissertation analyses and evaluates dialogical and prophetic practices of Christian and Muslim leaders in literature, policy documents and other resources of the Programme for Christian-Muslim Relations in Africa (PROCMURA). It develops factors of interreligious encounters, identity formation and transformation within an emerging conceptual model ('Mission as Prophetic Dialogue') and its praxis-cycle approach in Intercultural Theology of Religions. The candidate demonstrates

how the approach, which links institutional policy and research, and practice and theory, can guide and continuously transform leaders of PROCMURA who practice peaceful co-existence or reconciliation.

*Supervisor:* Prof DX Simon

MSABAH, Anzuruni Barnabe (Practical Theology)

*Empowerment by hope: a phenomenological study on the perspectives of hope vis-a-vis the well-being of African refugees*

This study is a lens through which the question of refugee migrants and their health and well-being could be approached from a practical theological perspective. The study engaged with a wide range of existing literature on hope – from, amongst others, the late theologian Prof Russel Botman – as well as empirical research with refugee migrants in Cape Town with regard to grounded meanings of hope in line with participants' lived experiences. Among other things, the findings of this research show that, in addition to being an indicator of human dignity, hope is a practical tool for holistic development. Thus, hope and empowerment are an inseparable binary with affective dimensions on being and belonging. In this way, putting hope into practice is an asset for improved holistic well-being.

*Supervisor:* Dr NF Bowers Du Toit

## **Fakulteit Geneeskunde en Gesondheidswetenskappe**

### **Faculty of Medicine and Health Sciences**

#### **IFakhalthi yezamaChiza neeNzululwazi kwezeMpilo**

##### **PhD**

CHILIZA, Bonginkosi (Psychiatry)

*A prospective study of clinical, biological and functional aspects of outcome in first-episode psychosis in South Africa*

This prospective, non-comparative study assessed the efficacy and tolerability of a depot antipsychotic combined with an assertive monitoring programme over 12 months in first-episode schizophrenia. There were high rates of acceptance and adherence to the treatment. Seventy percent completed the 12 months of treatment and 60% achieved remission. Patients experienced significant improvements in quality of life and social and occupational functioning. Adverse drug effects were generally mild. Three percent developed transient dyskinesia. However, considerable adipogenic and dyslipidaemic effects were observed. Twelve percent met our pre-defined criteria for non-response. This novel intervention may be particularly suitable for resource-constrained settings.

*Supervisor:* Prof RA Emsley

FISHER, Randall Graeme (Geneeskundige Virologie)

*Next generation sequencing of minor variant HIV drug resistance testing in South Africa: optimisation of upstream sample preparation for different sequencing platforms*

Die kandidaat het laevoorkoms- menslike immuunbrek virus (MIV) middelweerstandige haplotipes met nuwegenerasie-nukleïensuur-basispaaropeenvolgingbepaling (NGS) in monsters van Suid-Afrikaanse pasiënte ondersoek. Gapings in kennis is hiermee aangeroe. Dit het geblyk dat sonder volgehoue middeldruk-protease-inhibitorweerstandigheid in pasiënte wat tweedelyn-terapie ontvang, beperk bly tot enkelmutasie- minor haplotipes. NGS het meer mutasies as standaard-middelweerstandigheid-genotipering aangetoon in kinders wat, ten spyte van profilakse, infeksie opgedoen het. Die werk het ook streng standaarde vir DNA-verryking voor NGS daargestel en verbeterings in die proses ondersoek. Die werk is reeds in twee eweknie-beoordeelde publikasies vervat en 'n derde word tans voorberei.

Promotor: Prof GU van Zyl

FLINT, Margot Gwyneth (Medical Physiology)

*Gamete proteomic profile of male patients suffering from sexually transmitted infections*

A number of men suffering from idiopathic infertility also present with sexually transmitted infections (STIs). Using highly advanced techniques, the impact of *N. gonorrhoea*, *C. trachomatis* and *T. vaginalis* were investigated on functional characteristics and protein profiles of human spermatozoa. Apart from the negative bearing on concentration, motility and morphology, it was also shown that these STIs led to generation of seminal reactive oxygen species which correlated with DNA fragmentation. Proteomic analysis furthermore revealed a plethora of proteins, specifically involved in metabolic pathways and cell structure of spermatozoa, to be differentially expressed. This archetype study was able to truly explain novel mechanisms through which STIs can contribute to male infertility.

Supervisor: Prof SS du Plessis

External Co-supervisor: Prof G van der Horst

GLANZMANN, Brigitte (Human Genetics)

*Identification of novel Parkinson's disease genes in the South African population using a whole exome-sequencing approach*

Parkinson's disease (PD), a debilitating neurological disorder, has a significant genetic component, but the genetic aetiology has been understudied in Africa. This candidate investigated the genetic causes in the Afrikaner population, and genealogical analysis revealed that 40 Afrikaner patients were related to a founder couple who arrived in South Africa in the 1600s. She applied a whole exome-sequencing strategy to identify the causative mutation and variants in candidate genes (*SYNJ1* and *USP17*) were found. Also, she designed a novel bioinformatics tool to analyse this data. Identification of new disease genes is essential as it may reveal exciting insights into the underlying pathobiology.

Supervisor: Prof S Barden-Kruger

External Co-supervisor: Dr J Gamielidien

JANSON, Jacques Teran (Torakchirurgie)

*Die evaluering van 'n bioprostetiese mitraalklep van jugulêre vena en politetrafluoroetileen (Gore-Tex) chordae in 'n skaapmodel*

Hierdie studie ondersoek die gebruik van 'n interne jugulêre vena-segment vir die maak van 'n anterior mitraalklepsuil. Die ondersoek, in 'n skaapmodel, wys dat die nuwe mitraalklepsuil histologies die karakter van lewende weefsel behou en dat die klepsuil bevredigend funksioneer. Belangrike waarnemings is gemaak, soos dat die suspensie van die klepsuil van kritieke belang is om mitraalklepbulting en mitraalklep-inkompetensie te voorkom. Hierdie benadering het potensiaal vir mitraalklepvervanging en -herstel. Dit sou die gebruik van antistol, wat in die Suider-Afrikaanse konteks steeds problematies is wanneer vreemde materiaal vir mitraalklepvervanging gebruik word, kon onseil.

Promotor: Prof AR Coetzee

KAVOO LINGE, Augustine Peter (Medical Physiology)

*The dietary ionic effects on sex selection in animal models and its use in the prevention of X-linked disorders*

X-linked disorders are more expressed in male offspring and prevention of these hereditary diseases is the only recourse to date. Influencing conception towards female offspring can circumvent this problem; however, sex ratio adjustment remains highly contentious. By exposing two animal models (fish and mice) to combinations of ionic supplements, the candidate was able to demonstrate subsequent alterations in the oolemma's membrane potential. Based on galvanotropism, single valence cations caused a negative state and attraction of the androsperm, while double valence cations caused a positive state and attraction of the gymnosperm, thereby leading to a female conceptus and plausible dietary method to preclude X-linked disorders.

Supervisor: Prof SS du Plessis

External Co-supervisor: Dr C Kimivele

LANGENEGGER, Eduard Jacobus (Obstetrics and Gynaecology)

*Establishing an Obstetric Critical Care Unit in a South African tertiary hospital*

South Africa has a high rate of maternal mortality. The causes and avoidable factors are well documented. Insufficient critical care resources are commonly noted. Dr Langenegger compiled and implemented a detailed design blueprint for an Obstetric Critical Care Unit and conducted pre- and post-establishment audits of this service. Careful analysis was performed to evaluate the appropriate provision of advanced care and the outcomes in terms of mortality and morbidity. The results demonstrated a statistically significant decrease in maternal mortality. The blueprint will enable comparable obstetric services to establish similar units.

Supervisor: Prof DR Hall

External Co-supervisor: Dr FJ Mattheyse

ODUNAIYA, Nse Ayooluna (Physiotherapy)

*Cardiovascular disease risk factors among adolescents attending school in rural Nigeria*

The candidate developed a culturally appropriate lifestyle cardiovascular disease (CVD) risk factors questionnaire to determine CVD risk factors among adolescents in rural Nigeria. The first phase involved the development of the CVD risk factors questionnaire. The second phase comprised its cross-cultural validation. The final phases involved the investigation into CVD risk factors and objective factors, including blood pressure, BMI and waist hip ratio. She found that rural Nigerian youth are at a high risk of adult CVD. There is thus an urgent need for prevention.

*Supervisor:* Prof QA Louw

*External Co-supervisor:* Prof K Grimmer

VAN DER MERWE, Celia (Human Genetics)

*Analysis of copy number variation and disease mechanisms underlying Parkinson's disease*

Parkinson's disease (PD) is an incurable neurological disorder for which the underlying mechanisms are unknown. This candidate produced a cellular model of PD to study disease pathways and tested the effect of curcumin, an antioxidant, for its therapeutic properties on this model. She found conclusive evidence for mitochondrial dysfunction, and that curcumin was able to rescue these defects. Also, she demonstrated that copy number changes are a rare cause of the disorder in South African patients. This study is important as it provided novel insights into PD pathways and paved the way for future therapeutic strategies involving curcumin and other compounds.

*Supervisor:* Prof S Barden-Kruger

*Co-supervisor:* Dr B Loos

VAN DER MERWE, Nicole (Anatomical Pathology)

*Development and application of a pathology-supported pharmacogenetic test for improved clinical management of South African patients with breast cancer and associated co-morbidities*

The study led to the development of a pharmacogenetic test used to select breast cancer patients for whole exome sequencing (WES), beyond single-gene BRCA1/2 mutation detection routinely applied in familial cases. Stratification of breast cancer survivors according to oestrogen receptor status supported the evaluation of polymorphic variation in drug metabolising enzymes (CYP2D6) and those dependent on vitamin co-factors (MTHFR) across diagnostic boundaries. Detection of variants of uncertain clinical significance in the DNA mismatch repair pathway confirmed the value of a combined research and service delivery platform. This approach facilitates clinical interpretation of genomic information, while striving to meet patient expectations.

*Supervisor:* Prof MJ Kotze

*Co-supervisor:* Prof S Janse van Rensburg

*External Co-supervisors:* Prof J Bezuidenhout and Dr R Pienaar

YOUNG, Taryn Natalie (Community Health)

*Development of a best practice model for teaching and learning evidence-based health care at Stellenbosch University, South Africa*

The best strategies for learning and teaching evidence-based health care (EBHC) have not yet been elucidated. A mixed-methods approach was used to investigate how EBHC can best be integrated in medical student training. Clinically integrated, multifaceted strategies, with assessment, were found to be more effective than single or no interventions for enhancing EBHC knowledge, attitudes and skills. Global experience on initiating and implementing EBHC learning is reported, along with information on the challenges, opportunities and critical success factors for implementing EBHC in different countries. Finally, teaching and learning of EBHC at Stellenbosch University are explored, and recommendations made for programme strengthening.

*Supervisor:* Prof J Volmink

*External Co-supervisor:* Prof M Clarke

ZUNZA, Moleen (Paediatrics)

*Outcomes of different feeding regimes in a birth cohort of HIV-exposed infants in public health care settings*

The candidate conducted a prospective cohort study of HIV-exposed uninfected infants to evaluate HIV+ mothers' self-selection of either breast- or formula-feeding and the influence on growth or hospitalisation due to infectious diseases. The study occurred during transition from subsidised formula to exclusive breast-feeding. Adherence to exclusive breast-feeding was poor. Most mothers switched early to formula-feeding. There were no differences in outcomes between the two groups of infants. A qualitative study revealed conflicts as mothers decided between breast-feeding with its health-promoting benefits, but risk of HIV transmission versus formula with no risk of HIV transmission, but an increased likelihood of serious infections.

*Supervisor:* Prof MF Cotton

*Co-supervisor:* Prof M Esser

