

OFFICERS

Chancellor	Dr RJ Khoza BA(Hons) (UNIN), MA(Lancaster), Eng D(Warwick), LLD <i>Honoris Causa</i> (RU), DEcon <i>Honoris Causa</i> (UFS), LLD <i>Honoris Causa</i> (Warwick), CDSA
Vice-Chancellor and Principal	Professor NK Poku BA(Hons)(Nottingham), MA(Nottingham Trent), MSc(Coventry), PhD(Nottingham Trent)
Chair of Council	Dr L Moja MBChB(Natal), MMed OetG(Medunsa), MBA(UFS)
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Deputy Vice-Chancellor: Teaching and Learning	Professor SP Songca BSc, BScHons(Unitra), MSc, PhD(London)
Deputy Vice-Chancellor and Head of College of Agriculture, Engineering and Science	Professor FN Mudau (<i>Acting</i>) BScAgric(Univen), MScAgric(US), PhDAgric(UP, MBL (GSBL-UNISA)
Deputy Vice-Chancellor and Head of College of Health Sciences	Professor BP Ncama BCur(Unisa), MCur (Natal), PhD(UKZN), RN RM, RICN, RCHN, RDN, RNE
Deputy Vice-Chancellor and Head of College of Humanities	Professor NJ Mkhize BAHons(Natal), MA(Iowa), PhD(Natal)
Deputy Vice-Chancellor and Head of College of Law and Management Studies	Professor M Reddi (<i>Acting</i>) BA(Law)(UDW), LLB(UDW), LLM(UKZN), LLD(UDW)
Registrar	Dr KE Cleland B(Hons) Occupational Therapy(UP), MEd(Natal), PhD(UKZN), PG Dip Law(FICJ)
President of Convocation	Dr QL Mlita BSc Medical Science, BSc(Hons)(UNIZUL), MBChB(UKZN)

OFFICE BEARERS

COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE

Deputy Vice-Chancellor and Head of College

Professor FN Mudau (Acting)

BScAgric(Univen), MScAgric(US), PhDAgric(UP), MBL(GSBL-UNISA)

Dean and Head of School of Agricultural, Earth and Environmental Sciences

Professor J Sibiya (Acting)

BScAgricHons(Zimbabwe), MS(OSU), PhD(UKZN)

Dean and Head of School of Chemistry and Physics

Professor RS Robinson

BScHons, MSc, PhD(Rhodes)

Dean and Head of School of Engineering

Professor G Bright

PrEng, BScEng, MScEng, PhD(Natal), MBA(UKZN)

Dean and Head of School of Life Sciences

Professor AO Olaniran

BScHons, MSc(OAU), PhD(UKZN)

Dean and Head of School of Mathematics, Statistics and Computer Science

Professor S Viriri

BSc, MSc(Havana), PhD(UKZN)

Dean: College Research

Professor NA Koorbanally

BScHons, MSc, PhD(Natal)

Dean: College Teaching and Learning

Professor N Chetty

BScHons(Natal), PhD(UKZN)

ORDER OF PROCEEDINGS

The Academic Procession enters the Hall – *University Anthem – Ihele*

The Chancellor constitutes the Congregation

Welcome to Guests

Professor FN Mudau

Deputy Vice-Chancellor and Head of College of Agriculture, Engineering and Science (Acting)

Congratulatory Remarks

Students' Representative Council

Presentation of Distinguished Teacher : Dalene Vosloo

Deputy Vice-Chancellor: Teaching and Learning

Presentation of Doctoral Graduands

College Dean: Research

Presentation of Graduands

Deans and Heads of School in the College

The Chancellor dissolves the Congregation

National Anthem

The Academic Procession leaves the Hall

Gaudeamus Igitur

KEY TO SYMBOLS

- * Degree awarded *cum laude*
- α Degree awarded *summa cum laude*
- # Diploma awarded with distinction
- Posthumous

Award of Degrees in the College of Agriculture, Engineering and Science

DOCTORAL DEGREES

Doctor of Philosophy

Cele, Nosipho Magnificat, *BSc, MSc(DUT)* *Chemistry*

Thesis: An Exploration of the Therapeutic Potentials of Quinoline-Azole Molecular Hybrids against Cancer and Type 2 Diabetes.

Citation: Miss Nosipho Cele's research focused on developing new drug candidates using molecular hybridization approach. Utilizing modern synthetic techniques and the quinoline pharmacophore as structural core, Nosipho synthesized diverse libraries of quinoline hybridized with bioactive azoles viz., 1,3,4-oxadizole, 1,2,3-triazole and pyrazolopyrimidine. She then examined the therapeutic potentials of her designs against gastrointestinal cancers and type 2 diabetes. Nosipho also studied the drug-likeness and target engagement of her compounds using computational tools.

Supervisors: Professor P Singh and Professor AK Sharma

Chiazzari, Brent, *BSc, BScHons, MSc*..... *Biology*

Thesis: A phylogenetic analysis of the hermatypic Scleractinia of South Africa.

Citation: Brent has characterised the shallow water hard corals of South Africa in terms of their phylogenetic relationships, a massive task that has established a new baseline level of coral diversity on SA's reefs (148 species and 7 new genera). Brent's work revealed that the Isimangaliso Wetland Park hosts much of Africa's evolutionary diversity of corals and could prove to be a valuable refuge for this threatened taxon in the Anthropocene.

Supervisor: Dr AHH Macdonald

Folawewo, Abayomi David, *BScHons(ULagos), MSc(ULagos)* *Chemistry*

Thesis: Hybrid Modified Zinc Oxide Nanoparticles: Synthesis, Characterization and Applications as Recyclable Catalysts for the Photodegradation of Dye Pollutants.

Citation: Abayomi Folawewo's PhD research focused on the use of visible light active modified ZnO for the degradation of wastewater contaminated with industrial dyes. The study investigated the roles of hybrid ZnO and visible light as reaction

promoters. The novelty and quality of Mr Folawewo's contributions were highly praised by all of the examiners and are demonstrated by the publication of his work in highly rated scientific journals.

Supervisor: Professor MD Bala

Hao, Fei, BSc(Yangzhou University), MSc(GZU)Microbiology

Thesis: Mining and immune responses evaluation of a novel virulence factor of *Mycoplasma hyopneumoniae*

Citation: *Mycoplasma hyopneumoniae* is the etiological agent of enzootic pneumonia, an infectious swine respiratory disease that distributed worldwide. This study has screened an appropriate cell infection model for better understanding the pathogenic mechanisms of *Mycoplasma hyopneumoniae*. In addition, this study has found that NADH oxidase was a novel virulence factor of *Mycoplasma hyopneumoniae*, and it could activate the local mucosal immune response mediated by Th1 cells and Th17 cells in mice.

Supervisors: Professor J Lin and Dr G Shao

Hu, Xiaodan, BSc(ShanxiAgricU), MMed(Nanjing Agric Univ)Microbiology

Thesis: Generation of Novel Insecticidal Protein by Target-Based Screening

Citation: Dr Hu identified cadherins of two pest insect species susceptible to Cry toxin binding and used them to generate novel human-domain antibody fragments with significant insecticidal activity. The outputs generated from this study represent a substantial contribution towards the development of highly-specific, eco-friendly protein-based insecticides. Xiaodan Hu has published three research articles in high-impact international journals from her PhD work.

Supervisors: Dr D Vosloo, Dr OJ Poee and Dr X Liu

Kwoji, Iliya Dauda, DVM(UniMaid), MSC(UDOSOK) Genetics

Thesis: Multi-omics studies of the cell-to-cell interactions between *Ligilactobacillus reuteri* ZJ625 and *Limosilactobacillus salivarius* ZJ614 in a co-culture in defined media

Citation: Iliya Kwoji investigated the mechanisms of cell-to-cell crosstalk between two potential probiotic bacteria. His research revealed that microbial constituent of multi-strain probiotics interacts additively and synergistically affects the production of bioactive compounds which could be beneficial to the host. Also, the studied strains showed enhanced enzyme activities and regulate microbial cell population through bacterial communication system known as quorum sensing when in co-culture compared to the single strain preparation.

Supervisors: Professor MA Adeleke, Professor M Okpeku and Dr OA Aiyegoro

Lawal, Muhammad Abubakar, BSc(AhmaduBelloU), MSc(AhmaduBelloU)..... Chemistry

Thesis: Occurrence of Glyphosate, Anti-Retroviral Drugs, and Metal(loid)s in Wastewater and Sludge, and Their Uptake by Plants from Sludge-Amended Soils”

Citation: Pesticides and pharmaceuticals, such as glyphosate, aminomethylphosphonic acid (AMPA), and antiretroviral drugs (ARVDs), display serious health and environmental effects. Mr Lawal’s work revealed the presence of glyphosate, AMPA and ARVDs in South African waters and sludge, and their uptake by plants from sludge-amended soils. His findings will aid policy makers in South Africa, as these pollutants are yet to be regulated in water and sludge for agricultural reuse.

Supervisors: Professor BS Martincingh and Dr OA Abafe

Lin, Manman, BSc(Huahai Inst of Tech), MSc(Nanjing Agric Univ)Microbiology

Thesis: Identification of antibodies mimicking Cry2Aa toxin and development of chimeric proteins as potential insecticidal agents against diamondback moth (*Plutella xylostella*).

Citation: The study developed new insecticidal proteins by using receptor-targeted anti-idiotypic antibodies and modified Cry2Aa protein with anti-idiotypic antibodies. The receptor-targeted anti-idiotypic scFvs and sdAbs mimicked the spatial structure of Cry2Aa toxin. Both the antibodies and the chimeric protein, which developed by substituting domain II of Cry2Aa with an anti-idiotypic sdAb, have certain insecticidal activity against the target pest *Plutella xylostella*.

Supervisors: Professor J Lin and Dr X Liu

Mashao, Dakalo Casca, BSc(UL), BScHons(UL), MSc(UWC) Physics

Thesis: Optical and Radio Waves Study of Transient Luminous Events.

Citation: Dakalo has published two journal article on his research work and presented work in international and national conference. His research work further lights on the space weather, especially on Transient Luminous Events (known as Sprites).

Supervisors: Professor MJ Kosch and Professor S Venkataraman

Miambo, Regina Daniel, BMedVet(UEdwardMond), MSc..... Biology

Thesis: Echinococcus *granulosus*-complex infection in livestock and dogs in the southern region of Mozambique

Citation: The study was conducted in southern Mozambique to determine the prevalence and genotypes of Echinococcus *granulosus* in livestock and dogs. Overall prevalence of hydatid cysts was 3.9% in cattle, 2.9% in pigs and cysts were identified as Echinococcus *ortleppi* (G5). *Taenia hydatigena* and *T. multiceps* were identified in dogs. This is the first study in Mozambique reporting species of Echinococcus and Taenia in livestock and dogs respectively using molecular tools.

Supervisors: Professor S Mukaratirwa and Dr SMS Afonso

Mollo, Lerato Joy, BSc(UOVS), BScHons(UOVS), MSc..... Chemistry

Thesis: Occurrence, Mass Loads and Removal of Antiretroviral Drugs in eThekweni Municipality Wastewater Treatment Plants, South Africa.

Citation: Wastewater treatment plants are considered as hotspots for pharmaceutical drugs, including antiretroviral drugs, to enter the environment. Ms Mollo's investigations revealed that conventional treatment technology is not effective in the removal of antiretroviral drugs. She further utilised wastewater-based epidemiology to estimate community consumption of these compounds to proffer solutions for their remediation. This research is particularly relevant for KZN where the occurrence of HIV infection is high.

Supervisors: Professor BS Martincigh and Dr OA Abafe

Naicker, Kimara, BSc, BScHons, MSc..... Physics

Thesis: Application of Machine Learning Techniques to the Description of Open Quantum Systems.

Citation: In PhD work, Kimara used classical machine learning models to study the quantum dynamics of excitation energy transfer within strongly coupled open quantum systems relevant to light-harvesting complexes. First, Kimara demonstrated the capability of a convolutional neural network to perform Hamiltonian tomography with high accuracy. Second, Kimara successfully showed that an appropriately trained ML algorithm could predict the coherent movement of electronic excitations through a transport system.

Supervisors: Professor F Petruccione and Professor I Sinayskiy

Ncongwane, Katlego Prudence, BSc(UPret), BScHons(UPret), MSc(StellU), MSc..... Environmental Science

Thesis: Assessment of heat-health risks of vulnerable communities in South Africa.

Citation: The research work on heat-stress in South Africa is first of its kind to be reported. Katlego has published two of the research work in a reputed journal and has been cited widely. Currently, she is working in South Africa Weather Service and plan is also to forecast the thermal index to public.

Supervisors: Professor S Venkataraman and Dr JO Botai

Olofinsan, Kolawole Ayodapo, BSc(AdekunleAU), MSc(FUTA)..... Biochemistry

Thesis: Evaluation of the antidiabetic potentials and identification of bioactive phytochemicals of some South African medicinal plants.

Citation: Diabetes is one of major global public health problems. In this thesis, the candidate made a significant and novel contribution in the area of alternative medicine and type 2 diabetes by using several South African medicinal plants which will help to develop natural anti-diabetic medicines with fewer or no side effects. He has also published a number of papers from his thesis when some others are still in the pipeline.

Supervisor: Professor MS Islam

Pillay, Devanagari Alicia, BSc, BScHons, MSc..... *Biology*

Thesis: Genetic diversity of *Amblyomma hebraeum* and *Rickettsia africae* in the Eastern Cape province of South Africa

Citation: Genetic diversity studies identified a single dominant haplotype to which 67.5% and 58% of ticks belonged to COI and ITS-2, respectively. Observed low genetic diversity and lack of population structuring was consistent with recent population expansion of *Amblyomma hebraeum*. *Rickettsia africae* infection rates were comparable to those in previous studies and there was no association between haplotypes and the phylogeny of ticks that were *R. africae* positive and negative.

Supervisor: Professor S Mukaratirwa

Rono, Nicholas, BSc(EgertonU), MSc(EgertonU)..... *Chemistry*

Thesis: An Experimental Study of Graphitic Carbon Nitride-Based Materials and Selected Metal-Based Semiconductors in Organic Solar Cells Combined with a Computational Study of Perovskite Solar Cells.

Citation: Rapid population growth and technological development have led to significant global energy demand. Consequently, the use of fossil fuels has risen tremendously, resulting in pollution, global warming, and climate change. This study focused on experimental and computational perspectives on the performance of organic and perovskite solar cells. Mr Rono's research has positively impacted advancing solar cell devices that are cheap, flexible, easy to process, and offer better power conversion efficiencies.

Supervisors: Professor VO Nyamori and Professor BS Martincigh

Thobakgale, Setumo Lebogang, BSc(UL), MSc(UNISA)..... *Physics*

Thesis: Molecular Sensors for Evaluating Substandard Antiretroviral Medication Using Surface-Enhanced Raman Spectroscopy.

Citation: The thesis presents new findings on the use of tailored chemical sensors for detection and analysis of pharmaceutical products for quality control purposes. Outcomes showed that nanomaterial sensors enhanced signals from the Raman spectroscopy experiments, improving the sensitivity and limits of detection, in a manner that is applicable for monitoring and differentiating substandard medication for industrial applications. Lastly, he published seven articles in the fields of nanomaterials and Raman spectroscopy.

Supervisors: Dr PT Mthunzi-Kufa, Dr Y Ismail and Dr S Ombinda-Lemboumba

Umo, Ekuyikeno Silas, BSc(UCalabar), BScHons, MSc..... *Biology*

Thesis: Immune responses of *Trichinella zimbabwensis* and type 2 diabetes mellitus comorbidity in experimentally infected male Sprague-Dawley rats.

Citation: The study provided direct evidence that T2DM-induced Sprague-Dawley rats co-infected with worm infection are protected against T2DM progression, and also

provided some insights on immune-metabolic pathways for this effect. Results also strongly supports that *Trichinella zimbabwensis* ameliorates haematological, glucose and insulin disturbances in T2DM rats and that low levels of helminth infection provide an effective option for the treatment of T2DM by improving the inflammatory status.

Supervisor: Professor S Mukaratirwa

Venkatas, Jeaneen, *BSc, BScHons, MSc*.....*Biochemistry*

Thesis: Curcumin reduced Gold Nanoparticles for Interleukin-12 (IL-12) delivery to a Cervical Cancer Cell model

Citation: Cervical cancer is a leading cause of death in women in developing countries. This innovative study combined nanotechnology and immunotherapy to produce a powerful strategy for the treatment of cervical cancer. Novel curcumin-synthesized gold nanoparticles successfully delivered a therapeutic cytokine to cervical cancer cells, inducing significant mRNA and downstream protein expression. This activated cellular immunity and stimulated an antitumour immune-response proposing an exciting new strategy for cervical cancer therapy.

Supervisor: Professor M Singh

Wang, Jia, *BSc(JIT), MSc(Nanjing Agric Univ)*.....*Microbiology*

Thesis: Study on serum antibody diagnostic method and pathogenicity of *Mycoplasma hyorhinis*

Citation: This study aimed to develop and evaluate a specific *Mycoplasma hyorhinis* serum diagnostic method; to compare differences in strain virulence and inoculation route on the result of *M. hyorhinis* challenge; and, to elucidate the moonlighting functions of Glyceraldehyde-3-phosphate dehydrogenase (GAPDH), which may play an important role in the infection of *M. hyorhinis*.

Supervisors: Professor B Pillay, Professor AO Olaniran and Dr TE Chiliza

Xu, Hai, *BSc(CTGU), MSc(Yangzhou University)*.....*Microbiology*

Thesis: Targeted delivery of DNA vaccine against highly pathogenic avian influenza virus based on T7 phage to dendritic cells.

Citation: Mr Xu investigated a novel method to enhance vaccine delivery and immunogenicity using Avian Influenza Virus. Novel nanobodies targeting dendritic cells from chickens showed specificity and application as vaccine targeting ligands. Two nanobodies were selected for production of novel DNA vaccines encapsulated in phage to dendritic cells. His findings on vaccine development are of great importance to the poultry industry, with direct impact on public health especially in disease outbreaks.

Supervisors: Professor HY Chenia and Dr R Govinden

MASTERS DEGREES

Master of Science

Anyanwu, Stella Ezinne..... *Chemistry*

Dissertation: Concentrations and Risk Assessment of Potentially Toxic Metals in Dust and Sediments from Durban and Environs.

Supervisor: Professor BS Martincigh

Balram, Ashiq *Chemistry*

Dissertation: Comparative Studies of the Physico-chemical Properties of Vegetal Transformer Oils and their Blends with Natural Turmerone Extracts.

Supervisor: Dr A Bissessur

Broughton, Jethro Bruce..... *Biology*

Dissertation: Reproductive cycles of two sea cucumber species, *Holothuria cinerascens* (Brandt, 1835) and *Pseudocnella sykion* (Lampert, 1885)

Supervisor: Mr GK Moodley

Connie, Jason Sebastian *Physics*

Dissertation: Quantum Correlations – Adjustments.

Supervisor: Professor F Petruccione

* **David**, Ian Joel *Physics*

Dissertation: Digital Simulation of Single Qubit Open Quantum Systems in the NISQ and Fault Tolerant Setting.

Supervisors: Professor I Sinayskiy and Professor F Petruccione

Gazu, Khethokuhle *Microbiology*

Dissertation: Investigating the Anticancer Potential of Gold Nanoparticles Produced by Endophytic Fungi.

Supervisor: Dr R Govinden

Govender, Eshani..... *Biology*

Dissertation: Epigenetic priming and *in vitro* mutagenesis in sugarcane (*Saccharum* spp. hybrids) for resistance to *Fusarium* species and *Eldana saccharine*(Lepidoptera Pyralidae).

Supervisors: Professor MPMD Watt, Dr SJ Snyman and Dr RS Rutherford

- * **Govender, Priyanka** *Genetics*
 Dissertation: Development of a multiplex methylation SNaPshot assay for the identification of saliva and analysis of sex-specific differences in DNA methylation
 Supervisors: Professor M Okpeku and Dr M Joshi
- Harrypersad, Kirona** *Environmental Science, Geography*
 Dissertation: A Systematic Review of the Conditions for Successful Environmental Justice Mobilization Outcomes in South Africa: 2010 – 2020
 Supervisors: Dr F Ahmed and Dr PT Govender
- Inarmal, Nikitha** *Chemistry*
 Dissertation: Analysis of Targeted Pharmaceuticals and Metabolites at a Wastewater Treatment Plant in KwaZulu-Natal, South Africa.
 Supervisor: Professor B Moodley
- Ishwarlall, Tamara Zoe** *Genetics*
 Dissertation: Computational identification of potential vaccine candidates against *Mycobacterium ulcerans* infection
 Supervisors: Professor MA Adeleke and Professor M Okpeku
- * **Jacobs, Michael Andrew** *Geology*
 Dissertation: Numerical Groundwater flow and Contaminant Transport Modelling of the Greater Durban Region, Eastern South Africa
 Supervisor: Professor MB Demlie
- Kalicharan, Kerusha** *Chemistry*
 Dissertation: Bioaccessibility of toxic metals in post graduate student diets at UKZN.
 Supervisors: Dr T Singh and Dr A Bissessur
- Khambule, Sanelisiwe Cynthia** *Chemistry*
 Dissertation: Synthesis of Quinoline-Benzimidazole Hybrid Derivatives and their Antibacterial and Antimycobacterial Activity.
 Supervisors: Professor NA Koorbanally and Dr M Tukulula
- Khanyile, Andile Cyril** *Microbiology*
 Dissertation: Investigating the antibacterial and antagonistic potential of seaweed-associated bacteria and their biosynthesized cerium oxide nanoparticles.
 Supervisor: Professor HY Chenia

- Maima, Nokulunga Mildred**..... *Genetics*
 Dissertation: Evaluation of Gene Flow from Commercial Sugarcane Hybrids to Compatible Wild Relative.
 Supervisors: Dr M Joshi and Dr SV Joshi
- Manikam, Sashan Lee**..... *Geology*
 Dissertation: Geophysical examinations of the Wild Coast shelf, Eastern Cape, South Africa
 Supervisor: Professor AN Green
- Masondo, Nkanyezi**..... *Microbiology*
 Dissertation: Experimental identification and in silico evidence of *M. tuberculosis* derived epitopes specific binding to HLA-E for CD8+ T cell mediated immunity if used to design multi-epitope TB vaccine
 Supervisors: Dr TE Chiliza and Dr NE Mvubu
- Mbatha, Michael Nhlanhla**..... *Microbiology*
 Dissertation: Design, construction and cloning of a recombinant multi-epitope TB vaccine candidate from conserved, hypothetical and membrane antigens Rv0361, Rv1271c, Rv1424c, Rv3036c, and Rv3682 of *Mycobacterium tuberculosis*
 Supervisors: Dr TE Chiliza and Professor M Pillay
- Mbongwa, Francina Mofumahadi**..... *Genetics*
 Dissertation: Genetic analysis of the *cytochrome b* region in Nguni x nondescript populations within the KwaZulu-Natal province of South Africa
 Supervisors: Dr LS Mkize and Professor OT Zishiri
- McKelvey, Bianca** *Biology*
 Dissertation: Assessment of land-use/land-cover in select KZN estuaries: Implications for estuary health
 Supervisor: Ms CF Mackay
- Misra, Ashish**..... *Biology*
 Dissertation: Bioaccumulation of Mercury, Arsenic and Selenium in selected freshwater fish in the Umgeni River and human health implications
 Supervisors: Dr J Lebepe and Dr A Bissessur
- Moodley-Reddy, Avanthi**..... *Biochemistry*
 Dissertation: In Silico Characterization and Recombinant Expression of the Mycobacterium Tuberculosis Protein Biomarker, PE_PGRS17
 Supervisors: Dr OJ Pooe and Dr TE Chiliza

- Moopanar, Kynasha** *Microbiology*
 Dissertation: In vitro profiling of lipid-associated virulence factors in genetically diverse clinical strains of *Mycobacterium tuberculosis*
 Supervisors: Dr NE Mvubu and Dr S Senzani
- * **Motsomane, Nqobile**..... *Biology*
 Dissertation: Cycad-microbe symbiosis, soil nutrient inputs, and associated soil enzyme activities: a study of *Encephalartos villosus* growing in nutrient stressed ecosystems in the Eastern Cape, South Africa
 Supervisors: Dr A Magadlela and Dr T Suinyuy
- Mthembu, Octavia Zama Nobuhle** *Chemistry*
 Dissertation: Detection of Wastewater Cyanotoxins and Measurements of Microcystins and Nodularins by HPLC/PDA.
 Supervisors: Dr BP Gumbi and Dr H Govender
- Naidoo, Shenaid Marcia**..... *Biology*
 Dissertation: Quantification of Antioxidant Compounds and Determination of the Antioxidant and Antibacterial Activities of Different Tea Varieties Consumed in South Africa
 Supervisors: Dr S Shaik and Dr N Singh
- Naidoo, Thushrika**..... *Microbiology*
 Dissertation: Chemical characterization and potential anti-proliferative effect and apoptosis-inducing effects of phlorotannins and fucoidan extracts from *Ecklonia maxima*
 Supervisors: Professor AO Olaniran and Dr TA Olasehinde
- Ndlovu, Lusanda**..... *Chemistry*
 Dissertation: The Role of Iron Oxide in Fe-doped Co₃O₄ Catalyst for the Preferential Oxidation of Carbon Monoxide.
 Supervisors: Professor HB Friedrich and Professor S Singh
- * **Ndlovu, Siphellele Banele**..... *Biology*
 Dissertation: *Encephalartos natalensis*-microbe symbiosis, soil nutrient inputs and soil enzymatic studies in nutrient-deprived ecosystems
 Supervisors: Dr A Magadlela and Dr T Suinyuy
- Nene, Sinxolo Moyomuhle** *Physics*
 Dissertation: Some Topics in Modelling South African Covid Epidemiological Data.
 Supervisors: Professor MA Bucher, Professor F Petruccione and Professor T Konrad

- Nyide, Asanda** Nomfundo Graduate.....*Microbiology*
 Dissertation: Identification of transcriptome changes and molecular signatures in macrophages during infection by clinical strains of *Mycobacterium tuberculosis*
 Supervisors: Dr NE Mvubu and Professor B Pillay
- Nyoni, Nombulelo** Perfidia Tracy *Chemistry*
 Dissertation: Synthesis and Pharmacological Evaluation of Benzimidazole-1,2,3-Triazole Quinoline Molecular Hybrids as Potential Antitubercular Agents.
 Supervisor: Dr M Tukulula
- * **Parusnath, Myuri**..... *Biology*
 Dissertation: A pharmacological analysis on the leaf and stem secretory scales in *Combretum molle* (R. Br. ex G. Don.) Engl. & Diels (Combretaceae)
 Supervisors: Professor Y Naidoo and Professor M Singh
- Pillay, Leah** Rose*Microbiology*
 Dissertation: Purification, structural characterization and antidiabetic potential of sulphated polysaccharides derived from seaweeds.
 Supervisors: Professor AO Olaniran and Professor MS Islam
- Reddy, Preleen** *Biology*
 Dissertation: Establishing a germplasm conservation protocol for *Amaranthus dubius* seeds.
 Supervisors: Dr S Shaik and Dr M Nakhooda
- Rohde, Abigail**..... *Biology*
 Dissertation: Modelling of the ecological role of submarine canyon heads on the east coast of South Africa
 Supervisor: Professor UM Scharler
- * **Sancho, Rebekah** Eleasa..... *Biochemistry*
 Dissertation: Optimization of *Magnetospirillum magnetotacticum* cultivation conditions for improved nanoparticle yield and evaluation of the nanoparticles as potential antibacterial and antioxidant agents
 Supervisor: Dr K Pillay
- Shabalala, Sthabile**..... *Genetics*
 Dissertation: Analysis of Y-STR Diversity and DNA Methylation variation Among Black and Indian Males from KwaZulu-Natal, South Africa"
 Supervisors: Professor M Okpeku and Dr M Joshi

- * **Sivalingam, Dillon** *Biochemistry*
 Dissertation: Cisplatin-conjugated silver nanoparticles for ACE2 receptor-mediated targeting to lung cancer cells *in vitro*.
 Supervisor: Professor M Singh
- Sowman, Serina Pooja** *Chemistry*
 Dissertation: The Potential of Plant Polyphenols as Natural Photostable Sunscreen Active Ingredients.
 Supervisor: Professor BS Martincigh
- * **Wilson, Trevor Kenneth** *Genetics*
 Dissertation: Detection of Antimicrobial Resistance and Virulence genes within *Staphylococcus aureus* isolates collected from wild Pigeons and Houseflies from the Greater Durban area, KwaZulu-Natal, South Africa.
 Supervisor: Professor OT Zishiri
- * **Zungu, Vuyokazi** *Chemistry*
 Dissertation: A Comparative Study on the Effectiveness of Using 1 Commercially Available Porous Adsorbents and 2 Biochar Produced from Biowaste Coffee Grounds for 3 Remediation of Water-Soluble Pharmaceuticals.
 Supervisor: Dr BP Gumbi

HONOURS DEGREES

Bachelor of Science Honours

- Baloyi, Mmapelo Bronwyn** *Geology*
Chabalala, Vunene Nkateko *Biochemistry*
 * **Chetty, Danielle** *Marine Biology*
Cweba, Sivuyisiwe Thando *Marine Biology*
Davidson, Hannah Osaruese *Genetics*
Dhunraj, Rhea *Microbiology*
Dladla, Minenhle *Geology*
Dlamini, Sthembile Thobeka *Marine Biology*
Dlomo, Nomalungelo Noxolo *Geology*
Dube, Alwande Uthandolwakhe *Marine Biology*
Eastwood, Lauren Mary *Geology*
Ebrahim, Nazneen *Geology*
Fithi, Lola *Geology*

Gambushe , Andile Elrich	<i>Marine Biology</i>
* Gounden , Varshan	<i>Biochemistry</i>
Gumede , Mandisa Clearance	<i>Biochemistry</i>
Hajee , Mariam Ismail	<i>Chemistry</i>
Hirday , Sonalia	<i>Genetics</i>
Hlabisa , Minenhle Nozibusiso	<i>Biochemistry</i>
Hore , Rachel	<i>Genetics</i>
Joshua , Celestine	<i>Microbiology</i>
Khan , Iman	<i>Genetics</i>
* Khan , Muhammed Zidan	<i>Biochemistry</i>
Khoza , Aphiwe Bongive	<i>Genetics</i>
Madhi , Sabriyah	<i>Biological Sciences</i>
Majola , Olwethu	<i>Biological Sciences</i>
Makhoba , Nhlakanipho	<i>Geology</i>
Masuku , Kwazi Mazwi	<i>Chemistry</i>
Matadin , Mcaylin	<i>Biological Sciences</i>
Mbatha , Zanele Portia	<i>Geology</i>
Mbhele , Nosipho Slungile Hollyness	<i>Geology</i>
Mbonambi , Sithabile	<i>Biological Sciences</i>
Memela , Nhlelelo Sinakhokonke	<i>Geology</i>
Mntambo , Malwande Simphiwe	<i>Geology</i>
Monelo , Esihle	<i>Biological Sciences</i>
Moodley , Kaldyn	<i>Biological Sciences</i>
Moodley , Kylen	<i>Chemistry</i>
Moodley , Lyle Joshua	<i>Microbiology</i>
Mpungose , Lethiwe Bashadile	<i>Microbiology</i>
Mpungose , Thabiso	<i>Geology</i>
Msimanga , Phumzile Lucia	<i>Marine Biology</i>
Mtshane , Samantha Mellissa S'phephisile	<i>Biological Sciences</i>
Mthembu , Banele	<i>Physics</i>
Mthethwa , Njabulo Sonosakhe	<i>Chemistry</i>
Mthethwa , Nobuhle Beauty	<i>Chemistry</i>
Mthimkhulu , Zamahlubi Awande	<i>Marine Biology</i>
Naicker , Mishka	<i>Physics</i>
Naidoo , Yovani	<i>Biological Sciences</i>
Naidu , Amelia	<i>Biological Sciences</i>
Ndlovu , Siphumelele Sinthemba Fairness	<i>Physics</i>
Ndlovu , Thando	<i>Geology</i>
* Nel , Rachel Emma	<i>Microbiology</i>
Ngcamu , Amanda Naledi	<i>Biochemistry</i>
Nhleko , Lindile Nosipho Gracious	<i>Biochemistry</i>
Nkomo , Mkhanyisi Bridgeman	<i>Biochemistry</i>

Notuku , Lumka Nonzwakazi	<i>Geology</i>
Ntshaba , Xolile Pretty	<i>Biological Sciences</i>
Nyawo , Zamokuhle Patience.....	<i>Biological Sciences</i>
Padayachee , Saileshen	<i>Microbiology</i>
Pillay , Claudelle Jasmine	<i>Microbiology</i>
Pillay , Dhersan.....	<i>Physics</i>
Pillay , Mageshree	<i>Genetics</i>
Rafik , Muhammad Muhsin	<i>Geology</i>
* Ramdass , Sristhi.....	<i>Marine Biology</i>
Sabelo , Asabele	<i>Physics</i>
Simelane , Nqubeko.....	<i>Biochemistry</i>
* Singh , Mikhail Krishen	<i>Biological Sciences</i>
Sookhayi , Vyal Shivek.....	<i>Geology</i>

Bachelor of Science Honours in Environmental Science

Disane , Hlengiwe Junior	<i>Environmental Science</i>
Dlamini , Samkelisiwe Kayise.....	<i>Environmental Science</i>
* Gokal , Shweta.....	<i>Environmental Science</i>
Govender , Sharlyn	<i>Environmental Science</i>
Khuluse , Siphokuhle.....	<i>Environmental Science</i>
Madlala , Nqobile.....	<i>Environmental Science</i>
Mkize , Thandiswa Slondile.....	<i>Environmental Science</i>
Mnguni , Noxolo.....	<i>Environmental Science</i>
Naicker , Abigail.....	<i>Environmental Science</i>
Singh , Kirthi.....	<i>Environmental Science</i>
Somana , Palesa Onwabile	<i>Environmental Science</i>
Tsolo , Bolelang Judith.....	<i>Environmental Science</i>

Bachelor of Science Honours in Forensic Genetics

* Dookie , Alayka
Mbele , Bumnene Khululwa Kholo
Moodley , Rimmel
* Naidoo , Jerolin
Nzimande , Ayanda Pride
Pillay , Atiya
Pillay , Requel
Singh , Surekha

BACHELORS DEGREES

Bachelor of Science

Bhero , Benitah Bonginkosi.....	<i>Biochemistry, Genetics</i>
Biyela , Simphiwe Thulile.....	<i>Biochemistry, Chemistry</i>
Buthelezi , Samkelisiwe Luthando.....	<i>Biological Sciences</i>
Buthelezi , Sinothile Vamisile.....	<i>Biological Sciences</i>
Buthelezi , Thuthukani Phwayinkosi.....	<i>Biological Sciences</i>
Cele , Nothando.....	<i>Biological Sciences</i>
Chetty , Jerelle Mark.....	<i>Marine Biology</i>
Dayanand , Shreya.....	<i>Biochemistry, Microbiology</i>
Deonarain , Avthaar.....	<i>Biological Sciences</i>
Desai , Zaynub.....	<i>Genetics, Microbiology</i>
Dladla , Zethembiso Ladyfair.....	<i>Applied Chemistry</i>
* Dlamini , Anele Nombuyiselo Sbongeleni.....	<i>Biological Sciences</i>
Dlamini , Londiwe Sanelisiwe.....	<i>Biochemistry, Chemistry</i>
Dlamini , Neliswa Sthembile.....	<i>Biochemistry, Genetics</i>
Dlamini , Nontle Precious.....	<i>Biological Sciences</i>
Dubazana , Sithembeni Lindelwa.....	<i>Marine Biology</i>
Dube , Londeka Nomalungelo.....	<i>Applied Chemistry</i>
Dwayisa , Ntokozo Pearl.....	<i>Biochemistry, Microbiology</i>
Ebrahim , Zahra.....	<i>Cell Biology, Genetics</i>
Fakude , Zodwa Veronica.....	<i>Cell Biology, Microbiology</i>
Gama , Banele.....	<i>Biological Sciences</i>
Gazu , Azande Sthoko.....	<i>Genetics, Microbiology</i>
Gcaba , Makhosazana.....	<i>Environmental Science</i>
Gcabashe , Nontobeko Sbahle.....	<i>Biochemistry, Chemistry</i>
Goba , Mvelo Nkazimulo Masikhuleke.....	<i>Biochemistry, Microbiology</i>
Gobind , Dipika Amrit.....	<i>Applied Chemistry</i>
Gounden , Tyrelle.....	<i>Environmental Science</i>
Govender , Joshua Levi.....	<i>Biochemistry, Chemistry</i>
Govender , Kiaav.....	<i>Environmental Science</i>
Govender , Megeshlan Warren.....	<i>Marine Biology</i>
Govender , Preyeshini.....	<i>Applied Chemistry</i>
Govender , Prianca.....	<i>Cell Biology, Genetics</i>
Govender , Rivalen Rajen.....	<i>Environmental Science</i>
Gudar , Teshkara.....	<i>Genetics, Microbiology</i>
Gumede , Aphiwe Perseverance.....	<i>Genetics, Microbiology</i>
Gumede , Vuyiswa Nomvuyo.....	<i>Biochemistry, Microbiology</i>
Gungarajh , Sharice.....	<i>Environmental Science</i>

Hadebe , Noluthando Zama	<i>Biochemistry, Genetics</i>
Hammond , Tamara Jade	<i>Genetics, Microbiology</i>
Haripersadh , Genevieve Adele	<i>Genetics, Microbiology</i>
* Harisingh , Sanyuktha	<i>Genetics, Microbiology</i>
Harrilala , Levina	<i>Applied Chemistry</i>
α Hemraj , Leah Seran	<i>Biochemistry, Genetics</i>
Hlalukana , Mahle	<i>Environmental Science</i>
Hlatshwayo , Ronaldo Sanele	<i>Biological Sciences</i>
Hlongwane , Nothando Philile	<i>Biochemistry, Genetics</i>
Hossen , Taskeen	<i>Cell Biology, Genetics</i>
α Isaac , Sabrina Tasmin	<i>Biological Sciences</i>
α Ismail , Huda	<i>Biochemistry, Microbiology</i>
Khumalo , Khethiwe Hlanganisile	<i>Biological Sciences</i>
Khumalo , Luyanda Thabiso	<i>Applied Chemistry</i>
Khumalo , Neliswa Smelokuhle Yvonne	<i>Biochemistry, Microbiology</i>
Khumalo , Nomasonto Zimephi	<i>Chemistry, Microbiology</i>
Khwela , Thembeke	<i>Biochemistry, Microbiology</i>
Kobe , Misa	<i>Biochemistry, Genetics</i>
Koekemoer , Kirsty Peta	<i>Marine Biology</i>
Kweyama , Nkosiyazi Mlungisi	<i>Applied Chemistry</i>
Lalla , Cameron Jude	<i>Genetics, Microbiology</i>
Langwenya , Vuyo	<i>Genetics, Microbiology</i>
Lembede , Ayanda Precious	<i>Biochemistry, Chemistry</i>
Lubanyana , Thobeka	<i>Genetics, Microbiology</i>
Lukhozi , Nangamso	<i>Biochemistry, Microbiology</i>
Lumvi , Phiwe Natalia	<i>Microbiology</i>
Mabaso , Siphumelelo	<i>Environmental Science</i>
* Madhan , Jezelle	<i>Biological Sciences</i>
Maduna , Nolufefe Tiny	<i>Cell Biology, Genetics</i>
Mafu , Mbali	<i>Genetics, Microbiology</i>
* Magopa , Rebaone Lesego	<i>Genetics, Microbiology</i>
Magubane , Amanda Thulisile	<i>Environmental Science</i>
Mahabally , Terishna Rekha	<i>Biochemistry, Microbiology</i>
* Maharaj , Kirthana	<i>Biological Sciences</i>
α Mahomed Rafeer , Nooran	<i>Biochemistry, Genetics</i>
Makhanya , Samukelisiwe Aphiwe	<i>Environmental Science</i>
Makhoba , Anele Thobile	<i>Applied Chemistry</i>
Maluleka , Sizwe	<i>Applied Chemistry</i>
Mansoor , Mohamed Arshad Ismail	<i>Cell Biology, Genetics</i>
Maphalala , Aphiwe	<i>Chemistry, Microbiology</i>
Maphumulo , Zenande	<i>Genetics, Microbiology</i>
Marais , Zurike	<i>Marine Biology</i>

Mariah , Marcello Rios	<i>Genetics, Microbiology</i>
Masondo , Sibonelo Lizwilenkosi	<i>Biochemistry, Genetics</i>
Mathenjwa , Lwazi Philile.....	<i>Genetics, Microbiology</i>
Mathenjwa , Mandisa Sduduziwe.....	<i>Applied Chemistry</i>
Mazibuko , Landile	<i>Chemistry, Genetics</i>
Mbatha , Ndabezinhle.....	<i>Biochemistry, Genetics</i>
Mbele , Nosibusiso Lorraine.....	<i>Biochemistry, Microbiology</i>
Mbotho , Anezwa Zifikile.....	<i>Applied Chemistry</i>
Mchunu , Mandisa Amahle	<i>Biochemistry, Microbiology</i>
Mcunu , Thembinkosi Wonderboy	<i>Genetics, Microbiology</i>
Mdletshe , Andile.....	<i>Biochemistry, Genetics</i>
Mdunge , Asanda	<i>Biochemistry, Genetics</i>
Memela , Nokulunga Zamagambu Sthandiwe	<i>Biological Sciences</i>
Mgenge , Minenhle Fezile.....	<i>Genetics, Microbiology</i>
Mhlongo , Anele Phakamile	<i>Environmental Science</i>
Misra , Ishita.....	<i>Genetics, Microbiology</i>
Mkhize , Amahle Pretty	<i>Applied Chemistry</i>
Mkhize , Benny Kwandile.....	<i>Geography</i>
Mkhize , Nontobeko.....	<i>Biochemistry, Genetics</i>
Mkhwanazi , Zamokuhle Mbaliyethu	<i>Biochemistry, Microbiology</i>
Mlambo , Bongjwe Silindokuhle.....	<i>Biochemistry, Chemistry</i>
Mlangeni , Nosipho Pearl.....	<i>Applied Chemistry</i>
Mlimela , Belhah Lebogang.....	<i>Applied Chemistry</i>
Mlungu , Fikile Simamukele	<i>Biochemistry, Genetics</i>
Mncube , Bonginkosi Zama Ayanda	<i>Environmental Science</i>
Mngadi , Nonhle.....	<i>Biochemistry, Genetics</i>
Mngomezulu , Siphwiwe Ntokozo.....	<i>Biochemistry, Chemistry</i>
Mntungwa , Phindile	<i>Genetics, Microbiology</i>
Moodley , Eden Rebekah.....	<i>Biological Sciences</i>
Moodley , Sridhika.....	<i>Applied Chemistry</i>
α Mostafa , Nour Mohamed Mostafa Hassan.....	<i>Biochemistry, Genetics</i>
Mpontshane , Makabongwe Welile.....	<i>Environmental Science</i>
Mpungose , Seneme Nomfundo	<i>Biological Sciences</i>
Msane , Sbonelo Syanda.....	<i>Applied Chemistry</i>
Mthembu , Nokubonga Lebo	<i>Biochemistry, Genetics</i>
Mthembu , Nqobile	<i>Biological Sciences</i>
Mthethwa , Khethokuhle Cebelihle.....	<i>Biochemistry, Genetics</i>
Mthethwa , Lindokuhle.....	<i>Applied Chemistry</i>
Mthethwa , Nothando Sharon.....	<i>Applied Chemistry</i>
Mthethwa , Thabiso Sesuly.....	<i>Cell Biology, Genetics</i>
Mthethwa , Thandazo Sindiswa.....	<i>Biochemistry, Genetics</i>
Mtshaka , Yamkela.....	<i>Genetics, Microbiology</i>

Mtshali , Lethokuhle	<i>Cell Biology, Genetics</i>
Mtshali , Lungelo Ispihle.....	<i>Cell Biology, Microbiology</i>
Mtshali , Paradise Ntombiyombuso.....	<i>Genetics, Microbiology</i>
* Munsami , Nathania Esther.....	<i>Biochemistry, Genetics</i>
Munsamy , Damian.....	<i>Environmental Science</i>
Mvubu , Andiswa Sthandiwe.....	<i>Biochemistry, Chemistry</i>
Mzomba , Sinesipho.....	<i>Biochemistry, Chemistry</i>
Naicker , Diveshni.....	<i>Marine Biology</i>
Naidoo , Clarissa	<i>Applied Chemistry</i>
Naidoo , Tiyanna.....	<i>Genetics, Microbiology</i>
Ncayiya , Nolwazi Peaceful	<i>Cell Biology, Genetics</i>
Ndaba , Siphumelele Kholeka.....	<i>Environmental Science</i>
Ndimande , Nokukhanya Pinky.....	<i>Biochemistry, Microbiology</i>
Ndlovu , Simphiwe Zanoluhle.....	<i>Biochemistry, Genetics</i>
Ndwandwe , S'lindile Samukelisiwe	<i>Biochemistry, Genetics</i>
Ngcobo , Noluthando Olwethu	<i>Genetics, Microbiology</i>
Ngcobo , Sithabile Veronica.....	<i>Environmental Science</i>
Ngema , Noluvo Noxolo.....	<i>Biochemistry, Chemistry</i>
Ngoveni , Mpimo Kalman	<i>Applied Chemistry</i>
Ngubane , Azande.....	<i>Environmental Science</i>
Ngubane , Mduduzi Praise-God.....	<i>Biochemistry, Genetics</i>
Ngubane , Ntombenhle.....	<i>Applied Chemistry</i>
Ngwane , Amahle Carol.....	<i>Biochemistry, Genetics</i>
Ngwenya , Jabulisile Doris	<i>Applied Chemistry</i>
Nhlapho , Themba	<i>Chemistry, Geography</i>
Nhlazane , Sihe	<i>Genetics, Microbiology</i>
Nkala , Nomsa.	<i>Genetics, Microbiology</i>
Nkosi , Sithandiwe Kwanele.....	<i>Biological Sciences</i>
Nkwanyana , Nonsikelelo Leboloboho Buyile	<i>Biochemistry, Chemistry</i>
Nokwe , Onikayo.....	<i>Biological Sciences</i>
Nqoko , Mandisa.....	<i>Biochemistry, Genetics</i>
Nsele , Leyinhle Thulile	<i>Marine Biology</i>
Nsibande , Snethemba.....	<i>Genetics, Microbiology</i>
Nsimbi , Sinegugu.....	<i>Applied Chemistry</i>
Nsuntsha , Ayanda.....	<i>Environmental Science</i>
Ntombela , Cindy Hlengiwe	<i>Biological Sciences</i>
Nxumalo , Kwanele Sthobile	<i>Biochemistry, Genetics</i>
Nxumalo , Thembalihle.....	<i>Biological Sciences</i>
Nyawose , Nolwazi.....	<i>Environmental Science</i>
Nzama , Asanda.....	<i>Biochemistry, Microbiology</i>
Olivier , Daniel Edward.....	<i>Applied Chemistry</i>
Pather , Jemima Jane	<i>Biochemistry, Microbiology</i>

Pillay, Jezreel	<i>Genetics, Microbiology</i>
Pillay, Merushri	<i>Marine Biology</i>
Pillay, Tamara Nicole	<i>Biochemistry, Microbiology</i>
Qumbisa, Njabulo	<i>Biological Sciences</i>
Ragadu, Kandall	<i>Biological Sciences</i>
Rajakumar, Shweta	<i>Applied Chemistry</i>
Ramlugan, Bhavasha	<i>Cell Biology, Microbiology</i>
Ranjit, Kiara Kaylee	<i>Marine Biology</i>
Reddy, Chloe-Ann	<i>Genetics, Microbiology</i>
α Sabbatini, Paola Isabella	<i>Genetics, Microbiology</i>
Sahadeo, Adhir	<i>Biochemistry, Chemistry</i>
Sampath, Pavithra	<i>Genetics, Microbiology</i>
Sathar, Muhammad Ismaeel	<i>Genetics, Microbiology</i>
Sathnarain, Dinisha	<i>Cell Biology, Genetics</i>
Shabalala, Samukelisiwe Ivy	<i>Biochemistry, Genetics</i>
Shabalala, Sthandiwe Sphokazi	<i>Environmental Science</i>
Shaikh, Muhammed Furqaan	<i>Microbiology</i>
Shandu, Gcinile Ziphelele Nomcebo	<i>Biochemistry, Genetics</i>
Shange, Namisa	<i>Applied Chemistry</i>
Shelembe, Samkelisiwe	<i>Genetics, Microbiology</i>
Shusha, Nomcebo Nonjabulo	<i>Biochemistry, Genetics</i>
Sibisi, Anele Pinky	<i>Biochemistry, Genetics</i>
Sibisi, Londeka Asanda	<i>Genetics, Microbiology</i>
Sibiya, Asibonge Minenhle	<i>Biochemistry, Microbiology</i>
Sibiya, Mbalenhle Phumelele	<i>Biological Sciences</i>
Sibiya, Sanelisiwe Slindile Princess	<i>Cell Biology, Genetics</i>
Sibiya, Siphesihle Prudence	<i>Cell Biology, Microbiology</i>
Simelane, Thulasizwe Ndlelenhle	<i>Biological Sciences</i>
α Singh, Bianca Selene	<i>Applied Chemistry</i>
Sithole, Fisokuhle	<i>Genetics, Microbiology</i>
Skosana, Bathulisile Nosihle Portia	<i>Environmental Science</i>
Sobhudusi, Apehelele Jason	<i>Biochemistry, Genetics</i>
Sookdeo, Kajol	<i>Biological Sciences</i>
* Tokota, Dineo Okuhle	<i>Genetics, Microbiology</i>
Tombo, Thembelihle	<i>Biological Sciences</i>
Van Oers, Alexander Franciscus	<i>Biological Sciences</i>
Vilakazi, Mtabiseng Favourite	<i>Biochemistry, Genetics</i>
Wahab, Tasmia	<i>Applied Chemistry</i>
Xaba, Duduzile Ntokozo	<i>Biochemistry, Genetics</i>
Xaba, Lungile Mpilenhle	<i>Biochemistry, Genetics, Microbiology</i>
Xulu, Lindokuhle Minenhle	<i>Environmental Science</i>
Zondi, Nhlanhla	<i>Biochemistry, Chemistry</i>

Zondi , Vuyiswa Charity.....	<i>Marine Biology</i>
Zondo , Lethiwe Thembelihle.....	<i>Biochemistry, Microbiology</i>
Zulu , Nzuzo Lucas	<i>Genetics</i>
Zwane , Nonjabulo Mbali.....	<i>Genetics</i>
Zwane , Siyanda Sizwe.....	<i>Biochemistry, Genetics</i>

Bachelor of Science in Geological Sciences

Bala , Abdulbasit.....	<i>Geological Sciences</i>
Biyela , Sihle Handsome	<i>Geological Sciences</i>
Cebekhulu , Zamagugu Noxolo.....	<i>Geological Sciences</i>
Govender , Derushka	<i>Geological Sciences</i>
* Lamp , Demi	<i>Geological Sciences</i>
Magadla , Sandiswa Promise	<i>Geological Sciences</i>
Mahiti , Lithalelanga Ester Thamia	<i>Geological Sciences</i>
Mbanjwa , Ziyanda.....	<i>Geological Sciences</i>
Mbatha , Bandile Khaya	<i>Geological Sciences</i>
Mgcini , Sanele Joseph.....	<i>Geological Sciences</i>
Mthabela , Khaya lethu Phiwumusa.....	<i>Geological Sciences</i>
Mthethwa , Thobeka Nokwanda Vuyisile	<i>Geological Sciences</i>
Norkie , Zoe Maria.....	<i>Geological Sciences</i>
Nzama , Celumusa	<i>Geological Sciences</i>
Pantshwa , Miso Mihle	<i>Geological Sciences</i>
Pillay , Saiyuri	<i>Geological Sciences</i>
Sithole , Lethiwe.....	<i>Geological Sciences</i>
Xaba , Nokwanda	<i>Geological Sciences</i>
Ziqubu , Mbongeni.....	<i>Geological Sciences</i>
Zulu , Londiwe Shado	<i>Geological Sciences</i>
Zungu , Landiswa Precious	<i>Geological Sciences</i>

DISTINGUISHED TEACHERS' AWARD OF THE UNIVERSITY OF KWAZULU-NATAL

Dr Dalene Vosloo



Dr Dalene Vosloo is a Senior Lecturer in Ecotoxicology and Academic Leader of Cellular Biology in the School of Life Sciences in the College of Agriculture, Engineering and Science.

Dr Vosloo has adopted a student-centred teaching method by using the scaffolding of concepts, teacher-centred lectures, PowerPoint and Moodle, student-centred – online blended learning, flipped classroom, and online quizzes for her teaching strategies and methods. She is cognisant of the digital literacy skills students must have and has demonstrated excellence in all these. Her rationale is well written and she understands the higher education context quoting from the South African Higher Education Act. She strives to achieve deep learning and skills development while also preparing her students for life-long learning. She is aware of imparting skills to students so they can make a difference in society.

Dr Vosloo encourages her students to think critically about the past, current and future societal and environmental issues from local and international perspectives by keeping abreast of current news and developments locally, and internationally. Topics discussed and taught have direct application value in industry, research, and have immediate implications for students' day-to-day lives. In addition to teaching basic concepts and content, she encourages integration and application to produce highly knowledgeable individuals and develop problem-solving, professional skills and learning in a real-life context. She is aware that catering for students from diverse backgrounds is often challenging, particularly in large classes. She overcomes this by setting clear learning outcomes, motivating students through good teaching practice, setting effective assessment tasks, and encouraging students to collaborate through group work.

Dr Vosloo shares her teaching expertise through sharing of teaching materials, presenting workshops, and mentoring of junior academics. She is the current Kaltura champion for her College and serves on a task team to revise the curriculum. She assisted a new member of staff with coordinating a module, setting it up for the online domain and helped develop rubrics for more effective assessment.

The University of KwaZulu-Natal (UKZN) is honoured to confer upon Dr Dalene Vosloo, the Distinguished Teachers Award in recognition of her excellent teaching portfolio, preparing her students for life-long learning and equipping them to make a difference in society.

The Graduation Ceremony

The graduation ceremony has a long history and is steeped in tradition. It dates back to the establishment of the first universities in Europe in the 12th century.

The Chancellor

“Chancellor” is an office that goes back to Roman times: the original chancellor or *cancellarius* (as the office was known), regulated access to the Roman Tribune. In medieval times, the office became associated with the heads of writing departments of the early kings. Because so few people were literate, a chancellor was necessarily learned. This is why the heads and spokespersons of the early universities were also accorded this title. More recently the office has become largely symbolic and the executive head of a university is its vice-chancellor. One of the Chancellor’s primary roles is to confer degrees at the graduation ceremonies.

Dr RJ Khoza is the fourth Chancellor of the University of KwaZulu-Natal.

The Mace



The University of KwaZulu-Natal Mace was designed and executed by local sculptor Mr Zamokakhwe Gumede and is carved from an indigenous wood, Drakensberg bottlebrush (*umBande*), gathered from the artist’s home near Bergville.

The head of the Mace is made up of three opened book-like forms, suggestive of scholarship but also of the massive landscape forms of our province, onto each of which is placed a ruler, a pen and a pencil. These refer respectively to the scientific and computational, the text-based and the creative sides to the University’s work. Below this are an encircling set of heads, representing the diverse university community. The whole is surmounted by an alighting secretary bird (iNtungunono), an elegant and active bird found throughout the province and equally at home on land or in the air. At the foot of the Mace is a hoof-like shape, giving a sense of contact with the soil of Africa.

The carrying of the mace in the procession symbolises the university’s status as a degree awarding institution.

Academic Dress

The wearing of gowns by judges, ministers, teachers and scholars is an ancient and significant custom. By wearing a gown when receiving their degrees and diplomas, the graduating student participates in this long tradition and joins hands with students past and present.

The hood conveys the most amount of information with the addition of braid or coloured linings differentiating the different qualifications. The colour of the band or hood lining represents the College, each of which has its own colour.

Convocation

The Convocation of the University of KwaZulu-Natal is the statutory body consisting of all alumni and the academic staff (current and retired) of the University. On graduation, graduates and diplomates automatically become members of Convocation which is the largest stakeholder body with over 140 000 members. Convocation provides a link with graduates, past and present, and through this structure graduates have the opportunity to play a continuing role in the affairs of the University.

After being capped by the Chancellor, each graduate moves across the stage and hands the hood to the Robing officer who represents the Convocation of the University. The Robing officer places the hood upon the graduate's shoulders and, in so doing, symbolises acceptance into the Convocation of UKZN.



The University Logo

The original University Logo was officially launched on 27 February 2004 and it is a powerful visual symbol through which the University projects an image of excellence. In addition, it emphasises the University's standing and integrity within the province of KwaZulu-Natal and within the academic and business communities, at home and abroad. Above all, it provides an identity around which internal stakeholders – staff and students – unite.

The African shield symbolises the protection of our most valuable assets, namely, education, culture and, by extension, African scholarship. The globe with multi-coloured rays epitomises a rising sun, a new beginning and acts as a symbol of enlightenment.

Further, the globe represents the University as a global player, producing world-class graduates, while the multi-coloured rays embody diversity – race, culture, language – as well as social values. The book/wave/wings, which underscore the visual, represent the foundation of knowledge, the spirit of the eastern seaboard, and soaring to new heights.

the University logo represents a University that is rooted in and responsive to Africa's unique qualities, challenges, diversities and strengths, while, at the same time, nurturing and protecting African Scholarship.

On 3 June 2010 the current logo, with the isiZulu translation was approved.