

## College of Agriculture and Environmental Sciences

### Research focus areas for 2023: Department of Environmental Sciences - Horticulture

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher for 2023
Green infrastructure	Ms Liezl Craig <a href="mailto:craigl@unisa.ac.za">craigl@unisa.ac.za</a>	Low Impact Development	Ms Liezl Craig is a lecturer in the Department of Environmental Sciences. She has a background in landscape architecture and holds a Master's degree in Integrated Water Management from Monash South Africa. She is currently enrolled for a PhD with North-west University in Development and Management for Water Studies. Her research focus is on the use of green infrastructure in the South African context.	<ol style="list-style-type: none"> <li>1. Diffusion of green infrastructure in South Africa</li> <li>2. Sustainable stormwater management</li> <li>3. Integrated urban water management</li> <li>4. Value of green open spaces</li> <li>5. Knowledge transfer on green infrastructure</li> </ol>	Masters: 1
Green infrastructure	Dr EM van Staden  E-mail: <a href="mailto:vstadem@unisa.ac.za">vstadem@unisa.ac.za</a>	Urban forestry and green open space Management	Dr Elize van Staden is a lecturer in the Department of Environmental Sciences. She holds a PhD in Environmental Management from Unisa. Her research focus is on urban forestry and the management and use of urban green open spaces	<ol style="list-style-type: none"> <li>1. Urban forestry management</li> <li>2. Carbon sequestration of trees</li> <li>3. Sustainable urban green open space planning and management</li> <li>4. Public open space usage maintenance and management</li> </ol>	Masters: 7 PhD: 1

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher for 2023
Horticulture crop production	Angelique Swarts E-mail: <a href="mailto:swarta@unisa.ac.za">swarta@unisa.ac.za</a>	Propagation of South African medicinally important crops	Ms Angelique Swarts is a lecturer in the Department of Environmental Sciences. She holds a master's degree (cum laude) in Horticulture obtained from the Tshwane University of Technology. Her research area is in vegetative propagation of South African medicinally important crops.	Vegetative propagation of the Eight-day healing bush ( <i>Lobostemon fruticosus</i> ) from stem cuttings Propagation of South African medicinal plants by <i>in-vitro</i> tissue culture	Co-supervise: Master: 1 PhD: 0
Economic and environmental sustainability	MS Deutschlander e-mail: <a href="mailto:deutms@unisa.ac.za">deutms@unisa.ac.za</a>	Phytosociology Ecology Medicinal plants	Dr Miranda Deutschlander is currently a senior lecturer in the Department of Environmental Sciences. She holds a PhD in Plant Science. She obtained her MSc degree in Plant Science at the University of Pretoria specializing in Phytosociology. Research area the phytosociology of the grasslands of the North Western Orange Free State. She	1.Plant and animal interaction 2.Classification and description of plant communities 3.Vegetation analysis 4. Alien Invasive Plant species Grassland Biome 5. Propagation of South African medicinal plants sexually and asexually. 6. Evaluating the chemical composition of medicinal plants	Masters:5 PhD:1

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher for 2023
			<p>also holds a PhD Degree in Plant Science from the University of Pretoria, specializing in the field of medicinal plants as well as a certificate in Higher Education from Unisa.</p> <p>Methodology expertise: Quantitative studies</p>		
Green infrastructure	Mr OG Moletsane	Food gardens in schools	<p>Olaotse George Moletsane is a lecturer in the Department of Environmental Sciences. He holds an MTech degree in Horticulture from the Tshwane University of Technology. He is currently enrolled for a PhD in Ornamental and landscape Horticulture at Unisa.</p> <p>His research focusses on recreation facilities and food gardens</p> <p><b>Methodology expertise:</b> Quantitative Studies &amp; Qualitative</p>	<ol style="list-style-type: none"> <li>1. The effect of vegetable gardening on learners fruit and vegetable knowledge, preferences and consumption</li> <li>2. Recreation facilities in South Africa</li> </ol>	Co-Supervise Masters: 2

Focus area	Researchers in the focus area	Specialisation of researchers in the focus area	Profile of the researcher	Research project themes	Capacity per researcher for 2023
Plant production, cultivation and postharvest.	Dr Maluleke MK	Plant production, Plant propagation and Postharvest treatment of Horticultural and Agricultura crops.	<p>Dr Maluleke Mdungazi Knox is a lecturer in the Department of Environmental Sciences. He holds a PhD in Agriculture from The University South Africa</p> <p>His research focus is on investigation of the production of performance and quality of Indigenous crops (Food, medicinal and other commercial uses). under different growing conditions for potential commercialisation.</p> <p><b>Methodology expertise:</b> Quantitative methods.</p>	Plant cultivation, plant propagation, postharvest, water use efficiency, crop nutrient content, molecular biology (metabolites), medicinal plants and commercialisation of indigenous crops.	Co-Supervise Masters: 7 PhD: 7