

## College of Agriculture and Environmental Sciences

### Research focus areas for 2020: 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 2020
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
Unisa Niche Area: Economic and environmental sustainability	Ms EM van Staden E-mail: <a href="mailto:vstadem@unisa.ac.za">vstadem@unisa.ac.za</a>	Urban forestry Management	Ms Elize van Staden is a lecturer in the Department of Environmental Sciences. She holds a Master's Degree in Environmental Management from Unisa and is currently enrolled for a PhD. Her research focus is on urban forestry and	<ol style="list-style-type: none"> <li>1. Carbon sequestration of trees</li> <li>2. Regression of tree growth</li> <li>3. Urban forestry management</li> <li>4. Sustainable management</li> </ol>	Masters: 0 PhD: 0

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			the management of urban green open spaces.		
	Ms EM van Staden E-mail: <a href="mailto:vstadem@unisa.ac.za">vstadem@unisa.ac.za</a>	Green open space management	Ms Elize van Staden is a lecturer in the Department of Environmental Sciences. She holds a Master's Degree in Environmental Management from Unisa and is currently enrolled for a PhD. Her research focus is on urban forestry and the management of urban green open spaces.	<ol style="list-style-type: none"> <li>1. Public open space usage</li> <li>2. Urban gym evaluation</li> <li>3. Alien invaders in public open space Sustainable maintenance and management</li> </ol>	Masters: 0 PhD: 0
Horticulture crop production	Angelique Swarts E-mail: <a href="mailto:swarta@unisa.ac.za">swarta@unisa.ac.za</a>	Propagation of South African medicinal plants	Ms Angelique Swarts is a lecturer in the Department of Environmental Sciences. She holds a Master's Degree in Horticulture obtained from the Tshwane University of Technology. Angelique is currently enrolled for a PhD in Environmental Management at the University of South Africa. Her research area is in vegetative propagation of South African medicinal plants.	Propagation of South African medicinal plants 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:deutsms@unisa.ac.za">deutsms@unisa.ac.za</a>	Phytosociology	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	Plant and animal interaction Classification and description of plant communities Vegetation analysis Alien invasive species Grassland Biome	Masters: 2 PhD: 1

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			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.		
	Dr MS Deutschlander e-mail: deutsms@unisa.ac.za	Medicinal Plants	Dr Miranda Deutschlander is currently a senior lecturer in the Department of Environmental Sciences. She hold 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 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.	Propagation of South African medicinal plants from stem cuttings Propagation of South African medicinal plants by <i>in-vitro</i> tissue culture Evaluating the chemical composition of medicinal plants	Masters: 1 PhD: 0
Food gardens and nutrition in schools  Parks & Open spaces	Mr OG Moletsane	Impact of food gardens in schools	Olaotse George Moletsane is a junior lecturer in the Department of Environmental Sciences. He holds an MTech degree in Horticulture from the Tshwane University of Technology. His research focus is on analysing the impact of vegetable gardens on learner's fruit and vegetable knowledge preferences and consumption in schools.  <b>Methodology expertise:</b> Quantitative studies	1. The effect of vegetable gardening on leaners fruit and vegetable knowledge, preferences and consumption	Co-Supervise Masters: 1

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Plant production, cultivation and postharvest.	Mr Maluleke MK	Plant production, Plant propagation and Postharvest treatment of Horticultural and Agricultural crops.	<p>Mr Maluleke Mdungazi Knox is a lecturer in the Department of Environmental Sciences. He holds an MSc: degree from The University South Africa and is currently enrolled for a PhD: Agriculture at University of South Africa. His research focus is on investigation of the performance and quality of Indigenous crops under different growing conditions for potential commercialisation.</p> <p><b>Methodology expertise:</b> Quantitative methods.</p>	1. Investigation of the performance quality of <i>Cucumis metuliferus</i> under protected and open field, for potential commercialisation.	Co-Supervise Masters: 2