

WALTER SISULU UNIVERSITY

FACULTY OF NATURAL SCIENCES NEWSLETTER APRIL 2025



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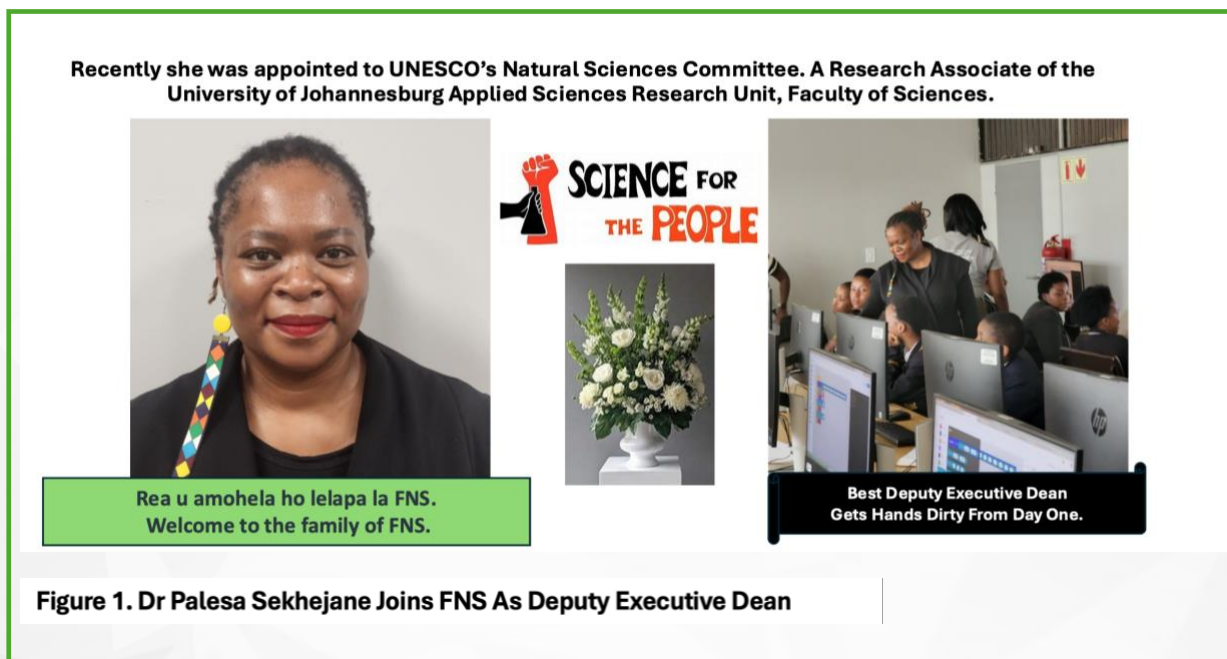
EXECUTIVE SUMMARY

The academic programme for April was disrupted by unplanned changes. The transfer of returning students to new programmes due to rationalisation was affected by the delays in registration. However, the faculty manages to accommodate all official students in the academic activities. Therefore, the undergraduate registration statistics is complete. The accelerated action of faculty committees is pleasing as we need to initiate and advance key resolutions: (i) management of undergraduate performance risk (ii) enhancement of staff capacity development (iii) improvement of research outputs and (iv) strategic collaborations

related to innovations in teaching, research and community engagements. It is also pleasing that staff embrace performance management and understand its importance. In this regard, it makes sense to consider Term 1 and Term 2 together to provide a meaningful assessment and evaluation of our performance. In the meantime, line manager-staff interaction is encouraged, especially as we focus more on teaching and learning prerogatives to ensure that we do not fail. The April report celebrates our collective endeavours and provides highlights of individual and group successes as we pursue strategic objectives.

ADMINISTRATION

The Faculty of Natural Sciences welcomes the appointment of Deputy Executive Dean, Dr Palesa Sekhejane, who assumed duty on 01 April 2025 (Figure 1). This appointment provides an opportunity for the Faculty to consolidate the three aspects of our strategic management: people, systems and processes to develop a meaningful nexus.



TEACHING AND LEARNING

Diversification provides the perfect complement to our student population. With approximately 2,500 undergraduate and 100 postgraduate students registered in 2025 (Figure 2), the faculty aims to identify and drive programmes which have been proven to define success in higher education institutions ([Feature: The financial sustainability of South African public universities – Accountancy SA](#)).



Figure 2. Faculty of Natural Sciences registration profile.

The current state of academic activities in the faculty suggests that senior management must produce a catch-up plan with respect to the university academic calendar. The plan, which must optimise the existing tutor programme (Figure 3), will be shared in advance of Semester 1 Examinations to implement alternative teaching and assessment programmes approved by Senate as stated in the WSU General Prospectus 2025. The examination timetable has been revised.

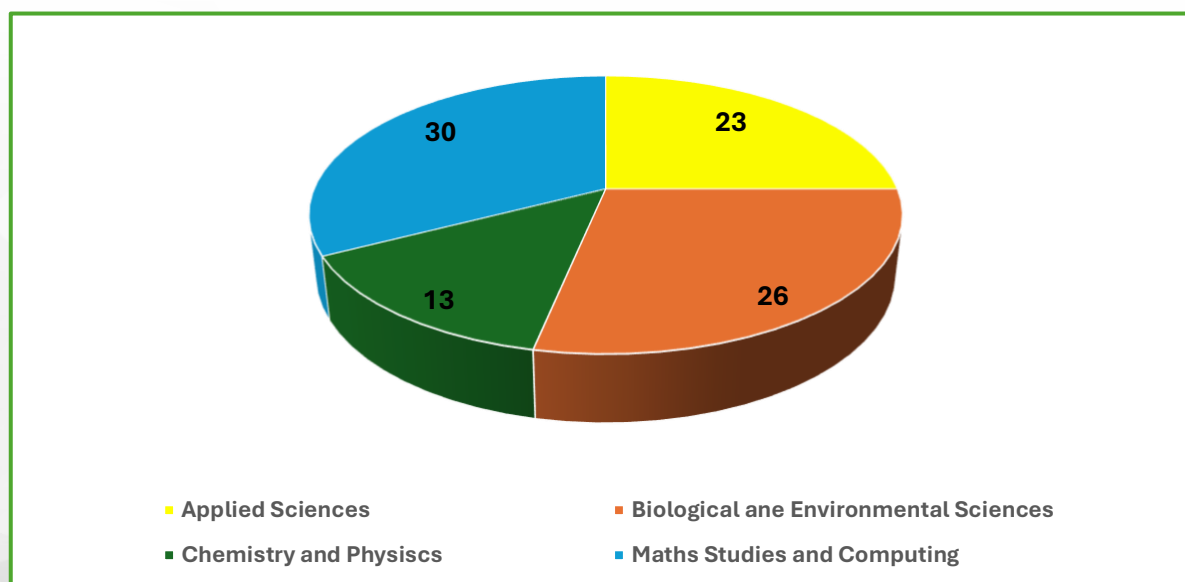


Figure 3. Faculty of Natural Sciences tutors, Semester 1.

RESEARCH AND INTERNATIONALISATION

South African Master of Ocean Science

The Faculty of Natural Sciences has joined a new multidisciplinary Master of Ocean Sciences degree in South Africa with taught and research components. This inclusive initiative is a collaborative effort between nine South African universities, five of which are historically disadvantaged universities, the National Research Foundation, and five European partner institutions. The aim is to strengthen education, research and innovation in support of the sustainable blue economy. The programme was launched at the Nelson Mandela University on 08 April, 2025. Deputy Vice Chancellor, Professor Nosisi Feza, led the FNS delegation (Albert Modi, Motebang Nakin and Thembinkosi Dlaza). She is a member of the Advisory Board which approved the SA-Europe agreement. Modi is a member of the Steering Committee that is responsible for programme implementation. Nakin and Dlaza will teach and supervise students in collaboration with South African and European universities (Figure 4).



Figure 4. Bridging Oceans: SAMOS launches ambitious Erasmus⁺ partnership in Ocean Sciences education between South Africa and Europe.

Research output

It is exciting to report that on the basis of journal articles alone, the Faculty of Natural Sciences' research productivity (publication unit equivalent to one paper per person) has increased by 94% from 2023 to 2024. Figure 5 shows the total units for 2024 and our top five (5) researchers in this category.

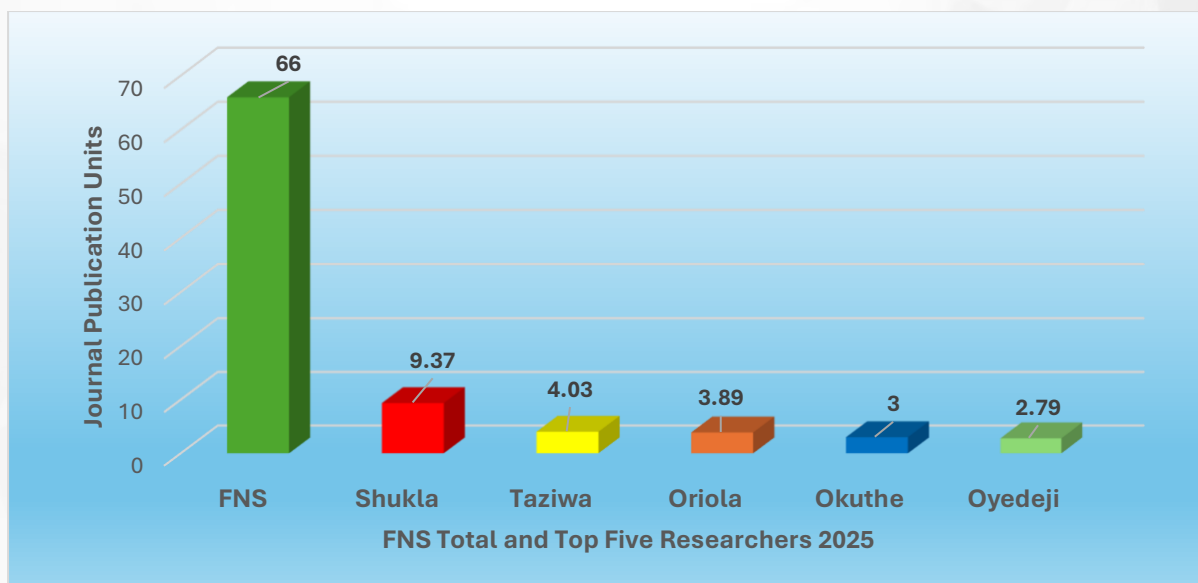



Figure 5. FNS journal publication units and top five (5) researchers in this category for 2024.

STAFF AND STUDENT CAPACITY DEVELOPMENT


The Faculty of Natural Sciences' EWIRA initiative continues to lay a solid foundation for enhancing research outputs and supporting female researchers in completing their academic writing. On 11 April, EWIRA held its second writing retreat, bringing together female academics and postgraduate students from various departments and disciplines (Figure 6A). This is our Vice Chancellor's initiative and forms part of ongoing efforts to build research capacity and promote academic excellence among female scholars at WSU. Evidence of success in this area is shown by increasing number of staff who graduate with PhDs in our faculty. Nomagugu Gxaba now holds a PhD (Figure 6B).



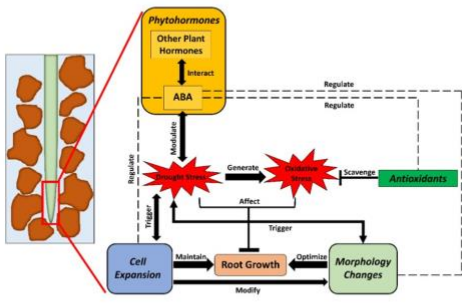
Biological and Environmental Sciences Lecturer Earns PhD in Biotechnology
Thesis:
Characterisation of the physiological and molecular determinants of the contrasting responses to drought in two cowpea genotypes



Congratulations!
Ugqatso ulufezile!
But, there is no
rest room in FNS.



Dr Nomagugu Gxaba,
PhD (UWC)




Developing crops that can withstand
extreme weather events, such as droughts
and floods, helps mitigate the impacts of
climate change on agriculture.

Figure 6. Second EWIRA Writing Retreat for FNS women in science (A) and the success story of women in science (B).

From 28 to 30 April, 2025, twenty-three (23) FNS postgraduate students participated in a workshop organised by the WSU Research and Innovation Directorate to enhance skills in developing research proposals (Figure 7).

FNS Postgraduate Coordinator Nofika Benxa Organised FNS Postgraduate Participation in WSU Research Writing Retreat

23 postgraduate students finalised proposals



“The workshop included one-on-one sessions with supervisors, offering students personalised guidance and feedback. Additionally, students engage in peer discussions, which facilitate collaborative learning and the exchange of ideas.”

Name	Qualification
NWABISA; MKHIZE	Master of Science in Physics
BOITUMELO; KORTJASS	Master of Science in Zoology
ATHANDIWE; MPONGWANA	Master of Science in Chemistry
FEZILE; MANTIVANE	Master of Science in Geography
TOKOZANI; MANGESI	Doctor of Philosophy in Natural Sciences
AMANDA ASANDA; TIYA	Doctor of Philosophy in Natural Sciences
SINEGUGU; SHEZI	Master of Science in Physics
ASANDISHA; MZANTSI	Master of Science in Botany
SINALO; XASA	Master of Science in Geography
ELONA; NGOVIMBANE	Master of Science in Chemistry
LWANDO; DINDI	Master of Science in Botany
ASEMAHLE; TIKILILI	Master of Science in Zoology
CHULEKAZI; TSHABANE	Master of Science in Zoology
ENTLE; NALUHLAZA	Master of Science in Mathematics
TLHOMPHO ALSON; MABALEKA	Master of Science in Zoology
XOLA; XIKI	Master of Science in Zoology
THEMBAKAZI PRECIOUS; SOSIBO	Master of Science in Geography
SOMELEZE; MZAMO	Master of Science in Zoology
XOLISA THABO; MABUZA	Master of Science in Botany
BATHI; GUSHA	Master of Science in Chemistry
NAMHLA; NGCAKO	Master of Science in Mathematics
THORISO; CHITA	Master of Science in Mathematics
GLADSTONE LUTHO; MKABA	Doctor of Philosophy in Natural Sciences

Figure 7. FNS postgraduate students benefited from the WSU Research and Innovation Writing Retreat.

Twenty MSc Plus Three PhD Equals 50 Publications Within Three Years!



FNS postgraduate students must participate as assistant lecturer and membership of community engagements

COMMUNITY ENGAGEMENT

The Faculty of Natural Sciences continues to establish partnerships for research-led community engagement. Two collaborative proposals have reached final stages with plans for implementation in 2025 or 2026 (Figure 8).

FNS Vies for Research-led Community Engagement Projects in National and Global Partnership Proposals

- i. Ecosystem-Based Adaptation (EbA) is a strategy for adapting to climate change that utilizes naturebased solutions and ecosystem services. It involves managing ecosystems to reduce vulnerability and enhance resilience against climate impacts, such as flooding and desertification.
- ii. The OCEAN Partnership Grants aim to support organizations partnering with locally led initiatives to deliver scalable solutions for marine protection and community resilience. Grants range from £250,000 to £3 million and are designed to address the impacts of climate change on coastal communities.



Figure 8. FNS is currently engaging in promising partnership proposals for community engagement.

NOTICES

1. [ERA Fellowships - Green Hydrogen - DAAD](#)
2. The Call for nominations for ASSAf's Science-for-Society Gold Medal Award for 2025 is open. ASSAf Science-for-Society Gold Medals are the apex awards of the Academy and the South African science system and are awarded in recognition of outstanding achievements by individuals. Up to two gold medals are awarded per annum for outstanding achievement in scientific thinking for the benefit of society. See: [ASSAf](#)