

UNIVERSITY OF PRETORIA INTEGRATED ACADEMIC FRAMEWORK 2023 – 2026

February 2023

Our overarching philosophy on the integrated academic project

This Integrated Academic Framework flows from the University's Vison 2025 and the five-year strategic plan 2022 – 2026. The Framework is anchored in our vision of becoming "a leading research-intensive university, internationally recognized for our quality education, relevance and impact and for developing people and creating knowledge, and for making a difference locally and globally" and our five strategic goals:

- To enhance access and successful student learning
- To strengthen the University's research, international profile, and global engagement
- To foster and sustain a transformed, inclusive, and equitable University community
- To enhance institutional sustainability
- To strengthen the University's social responsiveness and impact in society

As a public university, our core functions of teaching, learning, research, innovation and engagement are central to who we are, and how we give expression to our purpose. Through teaching and learning, we develop and realise human potential, and through research we create and advance new knowledge. These critical pathways, collectively, drive the impact we have, as determined by the quality and relevance of our work, and the consequential improvements to people's lives.

In fulfilling our purpose, we are cognisant that we exist because of society, and it follows that we should be functioning for the good of society. This calls for us to ensure and increase our relevance and efforts towards greater societal impact that is characterised by inclusivity and demonstrates clearly evident contributions to building democratic, just and sustainable societies and a better world. We are mindful of our contexts in South Africa, our continent Africa, the Global South, and as a part of the global community of nations, all of which shape our practices in teaching, learning, research, innovation and engagement.

In our quest to be a meaningful contributor to societal aspirations, and guided by our vision and institutional goals, we are involved in a double act of transformation – transforming ourselves, and at the same time making a significant contribution to transforming society. Through our core functions, we build capability and create new fundamental and challenge-led knowledge for societal development. We seek to leverage our strengths and capabilities, and demonstrate responsiveness to the contexts in which we are embedded. We believe that, collectively, teaching, learning, research, innovation and engagement form an integrated whole. They are inextricably linked, and are mutually reinforcing as we bring them to life.

Through this integrated Academic Framework, we articulate, at a high level, the overarching philosophies and approaches that underpin our teaching, learning, research, innovation and engagement. We embrace our identity as an engaged African university that is responsive to our multiple contexts. We highlight our unequivocal commitment to the provision of a wholesome and empowering learning experience to our students and our pursuit of research that is deeply connected to the challenges of South Africa, Africa and the world. Above all, we re-affirm our interconnectedness with society and communities and our role in advancing the public good.

Teaching and learning

The pursuit of excellence in teaching and learning at the University of Pretoria (UP) is premised on the understanding that teaching and learning must complement the research-intensive identity the University continues to pursue. Our goal is to create a learning experience in which teaching and research interact to promote discovery, creativity and innovation. We seek not only to broaden our students' knowledge and skills, but also to prepare them for the challenges of a diverse and changing world, contribute to greater adaptability and promote the values of critical citizenship and civic responsibility.

Our approach to teaching and learning is underpinned by a conviction that inquiry-led learning develops the capacity for critical thinking and a questioning attitude in students. This moulds students into engaged citizens with a host of valuable attributes, and who are conscious of the worlds they live in. It enables and prepares them for postgraduate studies, research careers, professional practice, employment and entrepreneurialism, as they develop themselves and make meaningful contributions to society.

In the face of our complex, uncertain and disrupted landscapes, dynamic futures in the world of work, and changing profiles of new generations of students entering higher education, we acknowledge the wide and evolving variety of modes of teaching and pedagogy. A hybrid mix of innovative contact and online teaching, supported by a dynamic, relevant and inclusive curriculum, must be applied in a fit-for-purpose way, to meet the needs of different disciplines and fields, the new dynamics of participants in the learning journey, and changing societal circumstances and expectations. In this regard, we also believe in modes of work integrated learning, to enhance the transition from learning to practice and enable future-readiness.

Keeping abreast of, and influencing the changing nature of teaching, enabled by rapidly changing technologies is critical to supporting our inquiry-led philosophy. We combine the latest technology to support our teaching and learning methodology and develop scalable, flexible, active, and interactive learning environments. Our digital strategy is embedded into flipped-learning methods to ensure that students come prepared, complete pre-class assessments, engage in class, and consolidate their knowledge after class. Being at the cutting edge of

scholarship in teaching and learning sets us up for the creativity we embrace, and the nurturing of talent that is resilient and able to address current and future complex challenges.

As we broaden access to higher education, we recognise and embrace the increasing diversity of students passing through the University. Ensuring their holistic well-being and inclusion serve as critical enablers to their, and the University's success, as they are transformed into African-Global citizens who are work- and future-ready. The University recognises that curriculum is a critical enabler of student success. Accordingly, curriculum development, review and renewal at UP is future-orientated and stakeholder-guided. The underlying principles are based on the purposes and value of the learning and desired outcomes; an analysis of the student profile; content to support outcomes, including disciplinary knowledge, skills, attitudes and values, input from professional and employer bodies and consideration of national imperatives; activities; learning environments; media; and assessment, resourcing, and the University's curriculum transformation agenda.

Research and postgraduate education

Central to our research strategy is that we must have a positive impact on our immediate and broader communities and environments, and that UP will remain a hub of knowledge production that speaks to the global academic community. We seek to increase the amount of high-quality research that we produce through rigorous approaches and strategic research partnerships, collaborations and networks. The University strongly encourages and supports national, regional and international research collaboration that is mutually beneficial. We will create an enabling and nurturing environment for researchers at all levels to thrive, supporting them according to needs appropriate to their level. In this regard, senior researchers are called upon to play a mentoring role for early career researchers. We valorise the presence of post-doctoral research fellows whose numbers will increase as a necessary pipeline for future academics.

The University supports disciplinary, multi -, inter – and transdisciplinary research. Disciplinary knowledge is foundational. Our approach to transdisciplinarity is anchored on disciplinary excellence, where we seek to be at the frontline of creating new knowledge and breakthroughs in our areas of expertise. At the same time, we seek to further develop transdisciplinary research as a source of differentiation, and to be a leader in it. We hold a conviction for its promise to bring together insights as well as talents from across our university, and from different disciplines and sectors, to deliver societal impact that makes a difference.

We believe in the articulation of both the innovative basic or fundamental research that inquiry-led teaching and learning stimulates in students, as well as challenge-led research that is directed at local and global challenges, to create better and more sustainable societies. As we produce

and create knowledge, we recognise and support modes of publication that are appropriate to the range of intra-, multi-, inter – and transdisciplinary work that we undertake. In this regard, we are cognisant of and recognise the differences in valorisation of diverse modes of research and publication in the academy, and the rising trend for open science. Research quality and excellence will be our guiding lodestar. To support and enable research, we will invest in our research infrastructure. Understandably, the University's own funding for research infrastructure cannot meet all our needs. Accordingly, researchers will be encouraged and supported to apply for equipment funding from various sources.

We seek also to pursue ethical research that is sustainable, underpinned by integrity and does not cause harm. To this end, we will pursue multiple forms of research funding, for research projects and activities, research infrastructure and postgraduate bursaries, beyond institutional and statutory sources, avoiding all funding that compromises the integrity of knowledge and scholarship.

Postgraduate education at UP is founded on the University's research intensity and is simultaneously a driver of the latter. Therefore, postgraduate study is a key element of the academic and research activities of UP. We seek to contribute to high-level skills development, to the creation of specialised knowledge nationally and internationally, and to building the human capital needed by knowledge institutions.

The quality of our postgraduate education is paramount. Our postgraduate qualifications are aimed at equipping students with knowledge and skills that enable them to think critically and contribute new knowledge that is relevant to their disciplines. We will continue to recruit postgraduate students in our areas of research strength and provide them with opportunities to participate in research programmes in their respective faculties within the University. In order to ensure that our postgraduate students attain excellent degrees and achieve the intended learning outcomes, we will strengthen processes that ensure quality assurance throughout the postgraduate life cycle, from enrolment to examination and graduation. Our high quality of postgraduate education is enabled structurally by an emphasis on the supervisor-student relationship and access to a range of opportunities for research capacity development, including the continuous development of postgraduate supervision skills.

The success of our postgraduate students is a critical component of our goals for student success. It is our objective to be a University of choice for postgraduate study in South Africa and Africa, including for members of academic staff from other universities. In order to facilitate this, we recognise the need to provide strong support with respect to postgraduate administration, funding and international opportunities as well as excellent academic training.

Innovation

In the face of disruptions and uncertainties, we are starkly presented with the choices of a "high road" to success and influence, or a "low road" to decline. A key characteristic of the "high road" that we have chosen, is the ability to innovate and to become masters of innovation.

We aim to pursue innovative research, pedagogies, curricula, and adapt to changing, complex and uncertain environments. For us, innovation is not an end in itself and neither is it simply about seeking distinctiveness as an excellent university; it is about being relevant and impacting society positively. Innovative research can provide significant benefits to society in the form of new knowledge that can be used to solve "wicked problems" facing the world, medical and technological breakthroughs and inventions that improve the quality of life. Similarly, innovative pedagogies and curricula ensure that our teaching and learning are adapted to the needs of our students, ensure quality and relevance, raise attainment levels, and prepare our students for the challenges and opportunities they will face after graduation.

We embrace innovation both as a catalyst for new ideas and a pathway for ensuring that we thrive as a vibrant educational and research institution in changing and uncertain conditions. More importantly, by engaging directly with the significant challenges of society, innovation will ensure that we are relevant by contributing to the advancement of society, the transformation of lives and communities, and the realisation of social justice and sustainable development.

Engagement and knowledge transfer

Our vision and strategic goals deliberately position us to engage with contemporary, emerging and future societal concerns and priorities. We are a public research-intensive University that is engaged with the broader society and operates on the basis of the public good. A University that fosters a mutually beneficial interaction with its communities and contributes to their advancement, that impacts society meaningfully, is socially responsive and contributes to the advancement of South Africa, Africa and the world. Our engagement is rooted in and arises from our teaching, learning and research and is not an adjunct to them. Our engagement philosophy is characterised by recognising, respecting and valuing all internal and external stakeholders, and embracing relationships of mutual benefit. Our partners bring valued and a diverse range of knowledge, experience and opportunities that support our commitment to excellence in teaching, learning, research and innovation.

Through community engagement, our students develop critical inquiry skills and dispositions, interdisciplinary perspectives, intercultural competencies and consciousness, and emerge as engaged and civic-minded citizens.

Further, it links the research and teaching skills of our staff and students to the specific needs of individual communities, thus advancing the public good by impacting communities positively. In turn, student life and the attributes developed while at university are enriched through their engagement activities. By participating in community engagement initiatives, our students expand and deepen their social capital (social networks) while also building social capital in the communities.

Our vision aspires that we should be a hub of knowledge production and transfer, recognised within the global scientific community. Producing top quality research is an important ingredient for civic engagement, social and economic advancement. We embrace knowledge transfer as a transformative enterprise aimed at impacting society, communities, industry and organisations. In this regard, we will strengthen various forms of knowledge transfer, including collaborative research projects with industry, spinoffs, development of intellectual property and consultancy. Further, we will strengthen various mechanisms for facilitating knowledge transfer, intensify collaboration and linkages with industry and other stakeholders, and strengthen our knowledge transfer infrastructure and capabilities.

This Integrated Academic Framework will be underpinned by detailed implementation plans, namely, a teaching and learning plan, a research, innovation and postgraduate education plan and faculty plans.



UNIVERSITY OF PRETORIA TEACHING AND LEARNING PLAN 2023 – 2026

May 2023

1. Teaching and learning – the UP context

This teaching and learning plan flows from the University of Pretoria's (UP) Integrated Academic Framework. As such, it is aligned to the University's Vision 2025, and the five-year strategic plan 2022 – 2026. The plan gives expression to our vision of becoming "a leading research-intensive university, internationally recognized for our quality education, relevance and impact and for developing people and creating knowledge, and for making a difference locally and globally."

The primary intent of the teaching and learning plan is to shift from strategy advocacy, to intentional, accelerated and coordinated strategy implementation. Furthermore, recognising the interdependence between teaching and learning, and the other core functions of research and engagement, the respective teaching and learning and research plans have been designed to collectively advance an integrated approach across the core functions.

2. Alignment with the institutional goals

The core function of teaching and learning directly supports our institutional goal to enhance both access to the University and successful student learning. To attain the aspiration, we adopt a holistic view across the student lifecycle, from pre-university initiatives, through the university journey, and ultimately in their careers. Through teaching and learning, we aim to enable the development of students into African-Global citizens who are inquiry-led and embrace lifelong learning. The skills, capabilities and attributes developed support student readiness for work or further studies, and include competence in innovation and entrepreneurship which help to navigate uncertainty and complexity. The teaching and learning plan is however not limited to this goal, it interfaces with all five goals.

Excellence in teaching and learning is a necessary foundation to achieve our aspiration to be a research-intensive university, with the progressive strengthening of our international profile. Additionally, our global engagement, and the partnerships we form also cover collaboration in the teaching and learning space through the development and delivery of shared academic programmes.

Our goals of a transformed University community and institutional sustainability, both have two-way relationships with the plan. Principles of transformation and sustainability are embedded into the design of institutional structures and the profile of staff, as well as the design, content and delivery of programmes. Additionally, effective execution of the teaching and learning plan must advance UP's transformation and sustainability agendas.

The capability we build through students successfully progressing through the institution is a key contribution to the University's social responsiveness and societal impact. Strengthening South Africa's and Africa's human capital is critical to just and inclusive development, and to securing our collective futures. Beyond the discipline-specific knowledge and skills gained, by embedding community engagement into the curriculum, we further enhance the attributes of citizenship and responsiveness in graduates as they follow their chosen career paths. To this end and to ensure our relevance, our programmes must be responsive to societal needs and stay abreast of changing societal dynamics and expectations, as we seek to increase and optimise our impact.

3. Relationships with other core functions

Given the multifaceted relationships between core functions and the institutional goals, it follows that the core functions will have numerous linkages and dependencies between each other. Teaching and learning on the one hand, and research on the other, interact as two sides of the same coin. They share clear interdependencies and are inextricably linked. An inquiry-led approach with demonstrated excellence in teaching and learning sets a solid foundation for high quality research and postgraduate education. In turn, cutting-edge research informs ongoing curriculum reform, renewal and transformation, along with the development of innovative modes of teaching and learning. Thus academics fulfil the dual roles of being researchers and educators.

Our engagement philosophies, the approaches we apply, and the engagement skills we demonstrate have become increasingly important as we continuously reform, renew and transform the curriculum. A key aspect of this is strengthening community engagement within the curriculum, and as a significant part of the entire teaching and learning system. In the broader sense, meaningful engagement is critical to both our internal effectiveness and the success of our external collaborations and partnerships locally and internationally.

4. Innovation as a lever to navigate complexity and enhance impact

At an institutional level, we see innovation as a key means to drive step and systemic change for positive societal impact. This is particularly so in settings of complexity, disruption and uncertainty. Innovation goes beyond invention, and encompasses applying existing knowledge to different contexts, and using it in different ways to create new forms and streams of value. By embedding innovation into our core functions, our conceptualisation of innovation is multidimensional. It can involve structures and processes, and can play out across technical, social, and economic domains. Structures and processes might include changes to the curriculum, adopting new teaching methodologies, developing new assessment methods, or implementing new technologies to support teaching and learning. The technical domain is about leveraging technology to enhance teaching and learning. The social domain focuses on creating an inclusive and supportive learning environment for all students. The economic domain addresses the financial sustainability of the university's teaching and learning programs.

5. Our philosophy on teaching and learning

Our philosophy on teaching and learning, along with our pursuit of quality and excellence, is underpinned by a set of key principles:

Our approach to teaching and learning is informed by the concept of praxis, which emphasises
the integration of theory and practice, encouraging students to reflect on their experiences and
apply their learning to real-world situations, thereby fostering a questioning attitude, critical
thinking, discovery, ethical conduct, creativity, and innovation, and supporting the University's

- research-intensive identity through an integrated approach across the core functions of teaching, learning, research, and engagement.
- We believe in a holistic approach to assessment which includes formative, summative, and self-assessment strategies, with a priority placed on transparency, inclusivity, and fairness. We are committed to implementing evidence-based, authentic, and innovative assessment methods that integrate an ongoing process for monitoring student learning to optimise instruction and elevate learning experiences, promote student self-reflection, progress tracking, and adjustments to learning strategies for increased self-direction. We assess student achievement and proficiency at the end of a course or program, certifying their learning and ensuring that learning goals and outcomes have been met.
- As we broaden access, we recognise and embrace the increasing diversity of students passing through the University, and seek to ensure their holistic well-being and inclusion as a prerequisite to their ultimate success.
- We seek to create an enabling environment for staff and students, nurturing their creativity and resilience so that all can thrive and reach their full potential. This environment is academically challenging to stretch efforts and realise the potential, yet human-centred and holistically supports people's academic success and well-being.
- Ongoing curriculum reform, renewal and transformation embraces diverse stakeholder perspectives, and is future-oriented and responsive to changing landscape dynamics.
- We aspire to be at the cutting edge of scholarship in teaching and learning (SoTL), ensuring responsiveness to complex, uncertain, disruptive, and dynamic landscapes, and a rapidly evolving world of work.
- In keeping abreast of, and influencing the changing nature of teaching and learning, we develop novel, flexible, hybrid and scalable programmes, innovative modes of teaching and pedagogy, and smart programmes that are applied in fit-for-purpose ways to continually improve the learning experience.
- Through our multiple international partnerships and networks we expose students and staff to innovative and diverse perspectives from across the globe, providing opportunities for exchanges, online learning and collaborative learning experiences.
- We recognize the increasing role of technology, artificial intelligence (AI), and generative AI in shaping the future of education and are committed to integrating these tools in our teaching and learning philosophy to enhance the learning experience in ethical ways and better prepare our graduates for the demands of a rapidly changing world. We remain, however, mindful of social inequalities and the need to ensure accessibility and inclusivity in the use of all technologies.
- Through the University journey, we seek to instil a philosophy of life-long learning and equip graduates with the knowledge and skills for postgraduate studies, research careers, professional practice, the broader world of work, and entrepreneurialism. We also seek to prepare them for the challenges of a diverse and changing world, where they will be citizens who promote the

values of critical citizenship and civic responsibility, and make meaningful contributions to society within and beyond their immediate careers.

These principles are supported by enablers which include the requisite infrastructure and learning spaces, as well as rapidly changing technologies which support a wide range of innovations across teaching and learning. Collectively, the principles and enablers shape our teaching and learning pathway to impact with its attendant strategic focus areas that ensure a coherent set of actions.

6. The teaching and learning pathway to impact

The teaching and learning pathway comprises a connected set of strategic focus areas within which work and activities are organised.

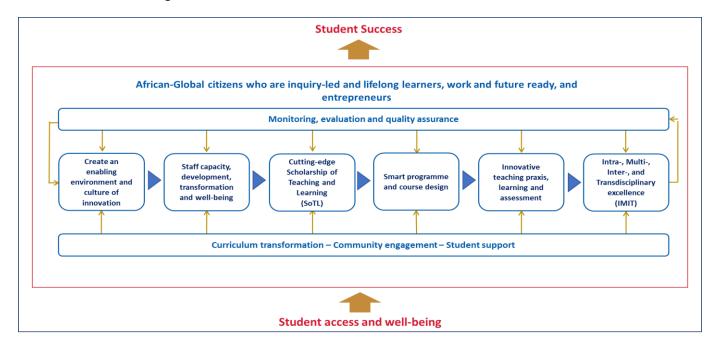


Figure 1: Teaching and learning pathway to impact

With the broadening of access, increasingly diverse students enter the teaching and learning system, and enhanced student well-being is a critical enabler of their and the University's success. To achieve this multifaceted goal, intentional efforts are needed to engage with feeder educational ecosystems, advance inclusion, and support the transition from high school to university life and study.

The teaching and learning pathway is underpinned by curriculum transformation, student support and community engagement. These dimensions influence all components of the pathway. The central part of the pathway focuses on creating an enabling environment. This requires transformational leadership that sets the institutional tone and creates a culture of innovation. Within this context, staff are developed, mindful of their well-being, and incorporating transformation imperatives into staffing demographics and planning. Cutting-edge Scholarship of Teaching and Learning (SoTL) supports smart programme and course design. These are delivered through technology-enabled and innovative modes of teaching,

learning and assessment. Collectively, the preceding strategic focus areas drive intra-, multi, inter- and transdisciplinary excellence. Monitoring, evaluation, and assurance of all aspects of the pathway enables continuous and step change improvements.

The University's teaching and learning praxis approach to education emphasises the integration of theory and practice, combining classroom instruction with real-world experience to promote critical thinking, problem-solving, and creativity. Laboratory work and practical session play an important role in this approach, enabling students to experiment practically and develop essential teamwork skills while introducing discipline-related work safety precautions and rules. In addition to laboratory work, the University also emphasises Work-Integrated Learning (WIL) and Community Engagement (CE) fieldwork as an essential part of the consolidation process. The University's curricular CE has been formally integrated into teaching, learning, and research and is credit-bearing, ensuring its sustainability and rigour. Overall, the University is committed to engaging with society and communities as a core function, flowing from its teaching and research functions. Through this approach we seek to mould students into African-Global citizens who are inquiry-led and embrace life-long learning. They are work- and future-ready for a disrupted and complex world, and are well prepared for postgraduate training and professional or academic success.

7. Strategic priorities 2023 - 2026

The priorities within each strategic focus area guide the faculties in developing their institutionally consistent, yet locally relevant faculty plans. Activities at faculty levels will advance our strategic intent of quality and excellence in education within their respective fields and disciplines, as well as at an institutional level.

7.1 Student access

- Grow student numbers from disadvantaged communities, international students, and postgraduate students, in line with the University's Enrolment Plan.
- Continue building stronger connections with schools serving marginalised communities.
- Recruit high-achieving undergraduate and postgraduate students.
- Leverage University entities such as Javett-UP and Sci-Enza to strengthen engagement with high school learners.
- Strengthen and consolidate Pre-University Academy activities.

7.2 Student academic success

 Promote student success by fostering an environment where students can thrive, offering support, and removing barriers to achievement.

- Strengthen inquiry-led approaches as part of the purpose and value of learning, and broaden disciplinary and transdisciplinary knowledge to incorporate skills in innovation and entrepreneurship and attributes such as leadership and citizenship
- Develop a holistic, data-driven approach to student success by integrating institutional strategies.
- Provide the University with a digital student success ecosystem that identifies, monitors and supports students, especially at-risk students.
- Apply a consistent approach to how the impact of each student intervention is measured, analysed, reported, reflected on, and improved.
- Strengthen onboarding activities that support the transition from high school to university through Academic Orientation.
- Strengthen student success academic initiatives such as the FLY@UP campaign, first-year student orientation, UP Readiness Survey, faculty student advisors (FSAs), tutor support, the HIMs project, and a digital student success support ecosystem to bolster data-driven student access and success initiatives.
- Increase collaboration between faculties, the Department of Student Administration, and other professional services to optimise early identification of at-risk students.
- Strengthen tutoring support for at-risk students, with a dedicated focus on High Impact Modules.
- Utilise student feedback to evaluate students perspectives and experiences, ultimately enhancing teaching and learning..
- Provide effective advisory and career development services for first-time entering students and students at risk.

7.3 Student well-being and support

- Support student health and well-being inclusive of mental, emotional, physical, and nutritional wellness initiatives.
- Strengthen links between faculty-led student well-being initiatives and those within the Department of Student Affairs; enabling a more integrated approach and continuity of support.
- Actively support University-led funding initiatives for students needing financial support and those to address student indebtedness.

7.4 Curriculum transformation

- Reinvigorate the Curriculum Transformation initiative for continuous curricular development engaging diverse stakeholders and incorporating various perspectives to develop pertinent content and context.
- Incorporate transdisciplinary concepts into teaching and learning content and processes.

- Advance and support examples of teaching excellence in curriculum transformation across UP community.
- Incorporate curriculum transformation as an essential component of academic planning and quality assurance processes in the University

7.5 An enabling environment and culture of innovation

- Clear leadership articulation of UP's quality, excellence, and impact orientation.
- Envision and clarify the desired culture at institutional and faculty levels.
- Strengthen transformational leadership capacity at all levels to shape the desired culture.
- Identify and address barriers to collaboration and innovation.
- Strengthen collaboration and peer support within and across faculties and with national and international partners.
- Strengthen initiatives for teaching excellence through recognition and awards.
- Continued infrastructure optimisation and development through the revised Spatial Development Plan and the Digital Transformation Strategy, creating an enabling learning environment in all spaces from residences to classrooms and open spaces.

7.6 Staff well-being, capacity, professional development and transformation

- Continued development of academics to improve their teaching, assessment, and curriculum development.
- Develop a combination of digital fluency and enhance the capacity of staff in blended learning approaches, increasing lecturer awareness and use of technology in teaching.
- Improve mentoring programs for early career academics while fostering continuous development, including reinforcing the nGAP program and assisting academic staff in obtaining doctoral qualifications.
- Continued optimisation of staff complements and profiles to improve staff-to-student ratios, ensure an inclusive teaching environment, and meet transformation imperatives while being mindful of the University's internationalisation agenda.
- Optimise workload models to enable balance and harmony between teaching and research activities.
- Develop a talent management policy to develop and retain critical staff.
- Continued focus and strengthening of staff well-being initiatives through the UP-Employee Wellness Programme (EWP), with holistic well-being inclusive of physical, mental, and emotional health.

7.7 Cutting-edge scholarship of teaching and learning (SoTL)

- Regularly review and reflect on teaching and learning practices at faculty, departmental, and
 individual academic levels to assess outcomes and pursue continuous improvement, while staying
 informed of best practices and adapting them as appropriate to local contexts and circumstances.
 Promote institutional research to improve teaching, student learning, and success through
 Scholarship of Teaching and Learning (SoTL) grants.
- Encourage exposure to and collaboration with other faculties and external experts to identify and develop teaching and learning practices innovations.
 - Encourage intentional participation in conferences and related forums for further learning and to position UP at the frontline and as a leader in SoTL.
- Coordinate opportunities for sharing and showcasing teaching and learning innovations.

7.8 Smart programme and learning design

- Review, optimise and rationalise the UP Programme and Qualification Mix (PQM) for enhanced offerings as educational needs evolve, to enable flexibility, and to improve efficiencies.
- Increase the number of undergraduate and postgraduate programmes offered in hybrid/blended modes.
- Ensure fit-for-purpose application of diverse teaching modes to meet the needs of different disciplines and fields, the new dynamics of participants in the learning journey, and changing societal circumstances and expectations.

7.9 Innovative teaching praxis, learning and assessment

- Implement and expedite the TEACH the UP WAY model, which consists of three phases in teaching
 and learning: (a) Preparation before class, (b) Engagement in class, and (c) Consolidation after
 class. This approach can be characterised as technology-enabled flipped learning that is selfdirected, inquiry-based, inclusive, and assessment-driven.
- Develop innovative assessment practices that integrate an ongoing process for monitoring student learning to optimise instruction and elevate learning experiences, promote student selfreflection, progress tracking, and adjustments to learning strategies for increased self-direction, and assess student achievement and proficiency at the end of a course or program, certifying their learning and ensuring that learning goals and outcomes have been met.
- Supply the University with a digital teaching and learning ecosystem that integrates the latest technologies to support and enrich the learning experience while leveraging technology to expand modes of delivery for scalable, flexible, and interactive learning environments.

- Pursue the development and strengthening of community engagement modules to apply theory
 in real-world situations with stakeholders from various sectors, advance engaged scholarship to
 merge education with community development, and reinforce curricular community engagement
 initiatives to enrich programs, embody the philosophy of mutual benefit, and foster the attributes
 of citizenship.
- Continuously strengthen and develop innovative modes of work-integrated learning to enhance
 the translation of theory into practice and facilitate the transition from learning into the world of
 work.
- Extend engagement and collaboration beyond the academic sector to include government, the private sector, and civil society.

7.10 Intra-, Multi-, Inter-, and Transdisciplinary Excellence (IMIT)

- Launch and drive the project on "The UP Framework for Transdisciplinarity" to enable institutionally consistent application with the locally relevant translation of transdisciplinary work.
- Advance and maintain excellence in intradisciplinary teaching and learning in our areas of strength to ensure that we remain at the frontier of education.
- Use disciplinary excellence as a platform to advance multi-, inter-, transdisciplinarity in teaching and learning.

7.11 Monitoring, evaluation, and quality assurance

- Review existing monitoring, evaluation, and quality assurance processes at faculty and institutional levels, and optimise them to ensure alignment with the Teaching and Learning Pathway to Impact.
- Ensure implementation of recommendations from the CHE institutional audit, quinquennial review of faculties and accreditation visits.
- Strengthen the University's quality assurance mechanisms to ensure high functionality.
- Develop an integrated quality assurance framework for the University
- Enabling learning from the interventions and initiatives undertaken through strengthening and leveraging internal capability in data science and modelling and developing models which attribute the relative contribution of different initiatives to outcomes.

8. Translation and implementation

Collectively, the strategic focus areas and their subsidiary priorities craft a coherent narrative and framework which provides insight and direction to the faculties and related professional services. They

also provide an approach to structuring the teaching and learning conversations needed at a faculty level – enabling institutional consistency, with application in locally relevant ways.

As with the UP five-year strategy: Destination 2026 and Beyond, implementation follows a simple and iterative 3-stage process.

8.1 Engagement

Initial engagement by the Vice Principal: Academic with the Deans and Deputy Deans: Teaching and Learning are for a shared understanding of the plan. At the faculty level further engagement will happen within Teaching and Learning Committees. This engagement process commenced during the design phase of the plan, and focused on the draft pathways to impact. Inputs from various faculties have been incorporated. After the initial engagement, interactions to enhance, monitor and evaluate the plan will continue in an ongoing way.

8.2 Translation and implementation

Our teaching and learning philosophy applies to all faculties and their related structures. It is derived from our common purpose, and represents the UP position and direction. The pathway to impact has been designed to enable a common approach, with each strategic focus area and component part of the pathway being generic across faculties. Translation to the faculty context is reflected in the content of faculty plans and their suite of defined activities.

In translating the pathway to impact, the high-level priorities outlined represent guidance to shape faculty-level plans. The degree of attention given to individual priorities within each strategic focus area is shaped by the faculty's current realities and level of maturity on the teaching and learning journey.

Having concluded the translation and development of faculty-level plans, execution is driven by the faculties and must be undertaken in a planned and scheduled way.

To assist with translation and implementation, the Department for Education Innovation has developed a more detailed guidance document, <u>The Academic Success of Students at the University of Pretoria: Initiatives, Roles & Responsibilities</u>, dealing with key sections of the Teaching and Learning Pathway to Impact.

8.3 Monitoring, evaluation, and learning

Monitoring and evaluation must be undertaken through existing processes and institutional systems and processes. At a Vice Principal: Academic and Dean levels, a key requirement is to facilitate learning from experiences in order to improve internal performance, as well as to facilitate the transfer of knowledge across faculties.

9. The lifecycle of the plan

In the spirit of continuous improvement, learning and renewal, this plan will have a lifespan of three years It will be reviewed in 2025, along with the extent and effectiveness of its contribution toward fulfilling ou institutional philosophy and purpose.



UNIVERSITY OF PRETORIA

RESEARCH, INNOVATION, INTERNATIONALIZATION AND POSTGRADUATE EDUCATION FRAMEWORK

2023 - 2026

MAY 2023

Research, innovation and postgraduate education – the UP context

This research, innovation and postgraduate education plan flows from the University of Pretoria (UP) Integrated Academic Framework. As such, it is aligned to the University's Vision 2025 and the five-year strategic plan 2022 – 2026, and gives expression to our vision of becoming "a leading research-intensive university, internationally recognized for our quality education, relevance and impact and for developing people and creating knowledge, and for making a difference locally and globally".

The primary intent of this plan is to shift from strategy advocacy, to intentional, accelerated and coordinated strategy implementation. Furthermore, recognising the interdependence between research and the other core functions of teaching, learning and engagement, the respective research, teaching and learning plans have been designed to collectively advance an integrated approach across the core functions.

Alignment with the institutional goals

Our institutional goal to strengthen the University's research, international profile, and global engagement speaks directly to the research, innovation and postgraduate education plan. Through its implementation, this plan seeks to realise our research-intensive ambition, enable the establishment of strategic partnerships, and position UP as a leading African university with a global outlook. The research plan is however not limited to the research goal, as it interfaces with all five goals.

Enhanced access and successful student learning is applicable to postgraduate education, as it is to undergraduate levels. Furthermore, broadened access and greater undergraduate success improves the talent pipeline for postgraduate education.

Our goals of a transformed University community and institutional sustainability both have two-way relationships with the plan. Principles of transformation and sustainability are embedded into research, innovation and postgraduate education philosophies, and at the same time, effective execution of the plan must advance the UP transformation and sustainability agendas.

Our last goal on the University's social responsiveness and societal impact provides line-of-site for the knowledge we create and the capability we build through the research, innovation and postgraduate education that we undertake. As a set of outcomes, the responsiveness we demonstrate and the positive impacts we have, are critical to our continued relevance, and to the meaningful role that we must play to advance the public good. This calls for our approaches to be attuned to the complexities and dynamics of the contexts that we exist in, and for us to demonstrate flexibility and agility in anticipating and responding to disruptions and changing circumstances in the world and around us.

Relationships with other core functions

As evident with the institutional goals, research as a core function has multiple interfaces and interdependencies with teaching, learning and engagement. Research, teaching and learning are mutually reinforcing in an iterative way. An inquiry-led approach with excellence in teaching and learning sets a solid foundation for high quality research and postgraduate education. In turn, cutting-edge research informs ongoing curriculum reform, renewal and transformation, along with the development of innovative modes of teaching and learning. As academics, researchers fulfil the dual roles of being

researchers and educators. As such, and in the spirit of embedding an inquiry-led philosophy and approach, postgraduate supervision also represents a form of teaching and training of students who may go on to either academic or non-academic careers.

Our engagement philosophies, the approaches we apply, and the skills we demonstrate have become increasingly important as we expand our repertoire of research modes and forms of collaboration. Responding to complex challenges through a transdisciplinary agenda and engaged scholarship calls for us to interact and work with broader sets of stakeholders, including those beyond academic boundaries. Effective engagement thus serves as a prerequisite to the research we undertake, and to collaborating and forming partnerships at local, national, continental and global levels.

Towards the resilient graduate

In concert, the core functions work towards developing graduates who are able to thrive, make a difference and demonstrate citizenship in a challenging and changing world. To thrive in today's world of work, students must be adaptable, ethical, critical thinkers, problem solvers, team players, collaborators, effective communicators, and self-directed learners who are interculturally aware.

We see the resilient graduate as an inquiry-led being with the ability to adapt and bounce back from the inevitable shocks and adversity encountered in life. Lifelong learning is embraced and used to anticipate challenging circumstances, harness internal and external resources to navigate complexity, and continue to make a difference.

UP seeks to develop T-shaped professionals, characterised by a strong discipline-based foundation that is complemented by a wider set of social and leadership competences. A broad suite of competences serving as basic building blocks, enables the graduate to pivot or reinvent a career as the world changes, yet remain purposeful and resolute towards making a difference for the public good.

Innovation to navigate complexity and enhance impact

At an institutional level, we see innovation as a key means to drive step and systemic change for positive societal impact. This is particularly so in settings of complexity, disruption and uncertainty. Innovation goes beyond invention, and encompasses applying existing knowledge to different contexts, and using it in different ways to create new forms and streams of value for UP and society at large. By embedding innovation into our core functions, our conceptualisation of innovation is multidimensional, being carried out through processes and across technical, social and economic domains.

Our philosophy on research, innovation and postgraduate education

Our philosophy on research, innovation and postgraduate education, and our strategic intent to be a leading research-intensive university is underpinned by a set of key principles:

- We pursue high quality research, anchored on integrity, rigorous approaches and quality assurance across all aspects of research and postgraduate education.
- Research across the spectrum of disciplinary, multi-, inter- and transdisciplinary spectrum is supported, recognising that our transdisciplinary work is anchored in disciplinary excellence.
- We create an enabling and nurturing environment for researchers at all levels to thrive.

- High quality postgraduate education, growing the pool of post-doctoral researchers, and providing mentoring, support and development opportunities to emerging researchers are critical to ensuring a healthy talent pipeline, sustaining our research intensity, and contributing to building capability in the broader society.
- We recognise and support diverse modes of research and publication pathways that are fit for purpose in relation to our different fields and types of research.
- We embrace collaboration and the establishment of mutually beneficial partnerships at national, continental and international levels to enhance our influence and impact.
- In addition to fundamental research, we pursue challenge-led research that deals with national, continental or global societal challenges, and seeks solutions for positive and sustainable societal impacts in our immediate communities and environments, and beyond.

These principles are supported by enablers which include the requisite technology and infrastructure, effective administration, and access to funding. Collectively, the principles and enablers shape our research, innovation and postgraduate education pathway to impact, and the attendant strategic focus areas that ensure a coherent set of actions.

The research, innovation and postgraduate education pathway to impact

The research, innovation and postgraduate education pathway comprises a connected set of strategic focus areas within which, work and activities are organised.

Transformative societal impact

Leveraging the strategic platforms and driving a transdisciplinary agenda Research knowledge management and intelligence Effective Staff and Research in Create an Strategic Knowledge enabling postgraduate research action: intra-Stakeholder partnerships creation and environment development, infrastructure. to transengagement: and innovative disciplinary and culture of transformation technology local - global international product innovation and well-being and support spectrum profile development High impact and sustainable funding

Figure 1: Research, innovation and postgraduate education pathway to impact

Societal context and challenges

In our commitment to pursue "research that matters", that is, research that is fundamental as well as research which addresses complex societal challenges and transforms lives and communities, we must be mindful of the dynamic societal context with its historic, prevailing and evolving suite of challenges.

Transformational leadership sets the institutional tone, and creates a culture of innovation. We seek to nurture staff, enable their development, and focus on their well-being. At the same time, we intentionally incorporate the transformation imperatives of diversity, inclusion and equity into our staffing complement and profiles. Effective research administration, infrastructure and technology supports and strengthens our research capability, enabling high-impact and societally relevant research that is undertaken across the intra- to transdisciplinary spectrum. Stakeholder engagement forms a key part of the research process, while high-impact research outcomes attract further engagement and strategic partnerships in a mutually reinforcing way. These collectively strengthen the University's international profile, and the attendant research outcomes create relevant new knowledge that informs policy formulation, and leads to the development of innovative products and services. Component parts of the research pathway are enabled by high-impact and sustainable funding.

Coherent knowledge management encompasses UP research outcomes a well as new knowledge creation beyond institutional boundaries. This includes sensing and identifying changing dynamics in the research landscape, and funding opportunities (intelligence) as they emerge. Leveraging our strategic transdisciplinary platforms enables iterative strengthening of the pathway for continuous and stepchange improvements, and transformative societal impact.

Within this framework and pathway, senior researchers have a critical role to play. They fulfil a leadership role in helping to set the directions and shape an enabling culture, mentor and nurture other researchers, and drive excellence in the research that we undertake. They are central to our engagement and partnering activities, and play a key role in identifying and pursuing research funding opportunities.

Strategic priorities 2023 - 2026

The priorities within each strategic focus area guide the faculties in developing their institutionally consistent, yet locally relevant faculty plans. Cognisant of our institutional intent to strengthen our research quality and intensity, we acknowledge that faculties are at different stages of research intensity. This will inevitably influence levels of attention placed on different priorities, as well as the pace of progressing up the research intensity curve, as faculties prioritise activities based on their relative circumstances.

An enabling environment and culture of innovation

- Clear leadership articulation of research intent and impact orientation.
- Strengthen transformational leadership capacity to shape the desired culture.
- Envision and clarify the concepts of research intensity and desired culture at faculty levels.
- Identify and address barriers to collaboration and innovation.
- Strengthen research hubs and collaborative forums, enabling collaboration and peer support.

Staff and postgraduate development, transformation and well-being

- Enhance postgraduate recruitment, admission and funding mechanisms to attract and support top talent at postgraduate and postdoctoral levels, remaining mindful of both transformation and internationalisation imperatives.
- Rapid scale in uptake of postdoctoral fellows to 500 through external and co-funded fellowship awards.
- Support the holistic health and well-being of staff and students, providing access to medical, psychological and emotional support services.
- Expand postgraduate supervisory capacity.
- Improve completion rates for master's and doctoral candidates.
- Mentoring programmes for emerging researchers and early career academics.
- Senior researchers to play a key role in exercising research leadership, and in mentoring and nurturing other researchers.
- Enhance postgraduate support through the Graduate Support Hub across campuses.
- Enhanced and customised support for B, C, P and Y rated researchers to improve grant application outcomes and researcher profiles.
- Increase the number of A- and P-rated researchers.
- UP funded research grants to support early career academics establishing a research track record.
- Increase the number of Research Chairs including SARChI Chairs while ensuring sustainability beyond the funding cycle.

Research infrastructure, technology and support

- Invest in research infrastructure, including modern, well-equipped laboratories and facilities through the revised Spatial Development Plan.
- Optimise research management processes including proposal submissions, approvals and funding applications.
- Strengthen Research Office presence and capability at faculty levels.
- Leverage from the UP Digital Transformation Project to enhance research processes and activities.

Research in action across the intra- to transdisciplinary spectrum

- Frame and apply a common approach (Institutional Research Framework) to map research across the intra-, multi-, inter- and transdisciplinary spectrum, leveraging UP strengths and establishing criteria for prioritisation of research activities.
- Maintain excellence in disciplinary research in our areas of strength, to ensure that we remain at the frontier of knowledge creation, and as a platform for our transdisciplinary work.
- Drive transdisciplinary research and leverage UP's transdisciplinary structures and platforms.
- For transdisciplinary initiatives, prioritise those that address strategically complex challenges, are societally relevant, and achieve impact locally, in Africa and globally.

Stakeholder engagement, strategic partnerships and international profile

- Extend research engagement and collaboration beyond the academic sector, to include government, the private sector, communities and civil society.
- Identify and pursue opportunities to engage and partner with Nobel Laureates.
- Implement and translate the Africa Global University Project (AGUP) to faculty levels, strengthening the role of faculties, departments and research hubs in partnering arrangements, while ensuring alignment with the UP partnering agenda.
- As part of the AGUP strategic intent, leverage the high percentage of UP academics with PhDs to work with fellow African partners to strengthen the continent's research capacity, capability and productivity, for high quality research and increased impactful global contribution.
- Improve coordination of internationalisation activities across UP, for greater alignment, scale and leverage.
- Expand and deepen strategic international partnerships and collaborations.
- Increase internationally co-authored research outputs.
- Increase visibility and positioning of UP's capability and outputs.
- Active participation and demonstration of leadership in key continental and global university networks and associations.
- Leverage partnerships and networks to strengthen the UP position as the foremost strategic convenor in Africa (Higher Education).

Knowledge creation, transfer and innovative product and service development

- Increase research outputs and impacts relevant to societal needs.
- Increase translation of research outputs into evidence-informed policy development.
- Increase translation of research outputs into innovative products, processes and services.
- Optimise and strengthen commercialisation of innovations.
- Extend consulting services footprint to the private sector and government.

High impact and sustainable funding

- All researchers, and in particular senior researchers, to actively pursue research grants, with effective administrative support for applications.
- Leverage the triad of strategic partnerships, addressing complex challenges, and societal relevance to secure and grow high impact and long term funding.
- Develop and secure innovative funding mechanisms to attract, develop and retain top postgraduate students and postdoctoral fellows.

Research knowledge management and intelligence

- Develop an integrated knowledge management system that accesses data, information and knowledge from distributed sources, enables synthesis and has analytic capability.
- Strengthen and leverage internal capability in data science and modelling to advance knowledge in impact measurement.

• Strengthen research intelligence capability to identify high-value partnering arrangements and high impact funding opportunities.

Translation and implementation

Collectively, the strategic focus areas and their subsidiary priorities craft a coherent narrative and framework which provides insight and direction to the faculties and related professional services. They also provide an approach to structuring the research conversations needed at a faculty level — enabling institutional consistency, with application in a locally relevant way.

As with the UP five year strategy: *Destination 2026 and Beyond*, implementation follows a simple and iterative 3-stage process.

Engagement

The DP Research, Innovation and Postgraduate Education engages with the Deans and Deputy Deans: Research for a shared understanding of the plan. This engagement process commenced during the design phase of the plan, focusing on the draft pathways to impact and incorporating inputs from various faculties.

Translation and implementation

Our philosophy on research, innovation and postgraduate education is applicable across all faculties and their related structures. This represents our common existence and the glue that binds us. Additionally, the pathway to impact has been designed from a generic process perspective that would be common to all faculties.

In translating the pathway to impact: the degree of attention given to the priorities within each strategic focus area is shaped by the faculty's current realities and level of maturity on the research intensity journey. The content and nature of the research undertaken is primarily determined by the field and related disciplines of the faculty, and its potential for societal impact.

Having concluded the translation of faculty-level plans, execution must be undertaken in a planned and scheduled way.

Monitoring, evaluation and learning

Monitoring and evaluation must be undertaken through existing processes and institutional hierarchies. At the Research, Innovation and PG Education and Dean level, a key requirement is to facilitate learning from experiences, thought leadership and transfer of knowledge across faculties.

The lifecycle of the plan

In the spirit of continuous improvement, learning and renewal, this plan will have a lifespan of three years. It will be reviewed in 2025, along with the extent and effectiveness of its contribution toward fulfilling our institutional philosophy and purpose.