



NORTH-WEST UNIVERSITY[®]
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

IN ITS PAGES, OUR LEGACIES ARE WRITTEN
BEHIND ITS DOORS OUR DESTINIES LIE
THIS IS THE PLACE WHERE YOUR BEST HAS THE PLATFORM TO BECOME BETTER
CAN VISUALISED
NEW
GREATEST
YOU
BOON
BECOME
DESTINY
BOUNDARIES
BE
YOU
BECOME
HUMAN
BE
UNIVERSITY
THEY OUR
GIVES
PROUD
FIRST
BECOME
NEW
OPEN
LEGACY
DARE
TO BE
WHO
OUR
GIVES
VOICES
IN
LIE
DREAMS
SUCCESSION
WHO
DIVERSITY
AMPLIFIED
FUTURE
A PLACE WHERE IMAGINATION HAS NO BOUNDARIES
ASPIRATIONS ARE THIS IS A PLACE WHERE VOICES ARE AMPLIFIED
ASPIRATIONS ARE VISUALISED

PROFILE

2012/2013

SOUTH AFRICAN HIGHER EDUCATION LANDSCAPE

There are 23 public higher education institutions in SA.

- 6 comprehensive universities
- 11 conventional universities
- 6 universities of technology

The North-West University (NWU) is one of the 11 conventional universities in SA.

Higher Education South Africa (HESA) is the governing body for SA's higher education institutions.

A PLACE WHERE ANYTHING IS POSSIBLE

EXCELLENCE IN CORPORATE GOVERNANCE

NWU: Best governed university in SA.
(PricewaterhouseCoopers' Excellence Awards, 2007, 2008, 2009, 2010, 2011)

EXCELLENCE IN INNOVATION

NWU: Most innovative university in SA.
(Innovation Fund, Department of Science and Technology, 2008)

EXCELLENCE IN MULTILINGUALISM

NWU: University contributing the most towards multilingualism and nation building in SA. (Pan South African Language Board (PanSALB), 2008)
Award for interpreting and translation (PanSALB, 2010)

MANAGEMENT MODEL

A new institution

The NWU officially came into being on 1 January 2004, as part of the transformation of the higher education landscape.

Two-tier management model

- Institutional Office
- Three campuses

Campuses

- Mafikeng Campus
- Potchefstroom Campus
- Vaal Triangle Campus

Faculties: Potchefstroom

- Arts
- Natural Sciences
- Theology
- Education Sciences
- Law
- Economic and Management Sciences
- Engineering
- Health Sciences

Faculties: Mafikeng

- Agriculture, Science and Technology
- Commerce and Administration
- Education
- Human and Social Sciences
- Law

Faculties: Vaal Triangle

- Humanities
- Economic Sciences and Information Technology

Vision

The vision of the NWU is to be a “pre-eminent university in Africa, driven by the pursuit of knowledge and innovation”.

Values

The NWU subscribes to the end-values of human dignity, equality, freedom, integrity, tolerance, respect, commitment to excellence, scholarly engagement, academic freedom, justice and transparency. In practice, a condensed set of four instrumental or do-values has been identified, namely integrity, commitment, accountability and respect.

Mission

The NWU’s mission is to become a balanced teaching-learning and research university, and to implement our expertise in an innovative way. This the institution will achieve as it lives its values, strives for sound management and pursues transformation, while being locally engaged, nationally relevant and internationally recognised.

According to the 2010 figures of the Department of Higher Education and Training (published in 2012), the NWU rated very well, benchmarked against the other 22 higher education institutions in South Africa. Here is the evidence:

- In 2010 the NWU was the third largest university in South Africa based on the total head count, namely 55 732 (In 2009 it was 50 589, which is an increase of 10,2%). In terms of distance students, the NWU was the second largest in SA.
- For the total number of degrees and diplomas awarded in 2010, namely 15 083, the NWU rated second in the sector (2009: 13 445, an increase of 12,2%).

Teaching-Learning scoreboard for 2011:

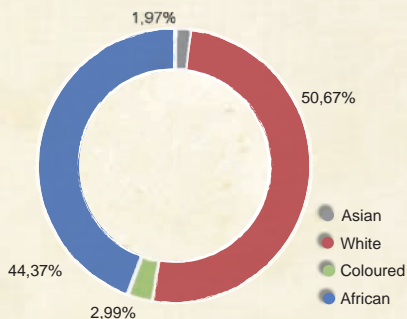
- The NWU’s undergraduate pass rate for 2011 was 85,2% for contact students and 85,3% for distance students, putting the NWU well ahead of the national average.
- With regard to the graduation rate of 26,6% for contact students and 29,9% for distance students, the NWU once again finds itself in the top echelon of the country’s universities.

PAY-OFF LINE

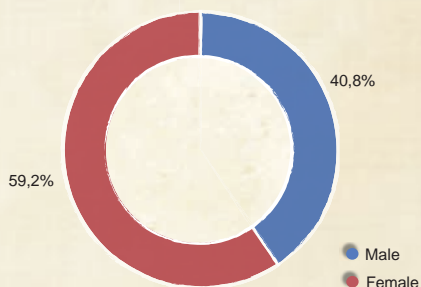
- Innovation through diversity
- Innovasie deur diversiteit
- Popošešwa ka pharologano

Empowerment status	
Black executive directors	50%
Female executive directors	10%
Black staff (% of total staff)	35,32%
Female staff (% of total staff)	57,18%

Racial composition of contact students in 2012*

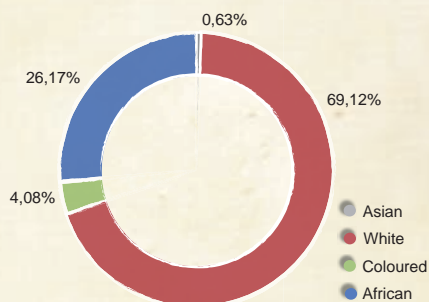


Gender composition of contact students in 2012*

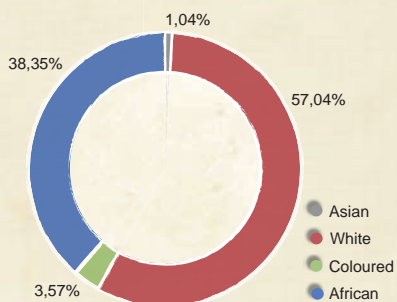


Racial and gender composition of permanent staff in 2012*

Female



Male



* Not final

IT'S NOT JUST ABOUT **EDUCATION**, BUT THE **OPPORTUNITY** THAT **EDUCATION BRINGS.**

This is a place...where ANYTHING is **POSSIBLE.**

A place where **IMAGINATION**
has no boundaries,

and **DREAMS** are born.

A place that gives a **VOICE** to who you DARE to be.

Where every new day is an **OPPORTUNITY** to be
the next **GREATEST, FASTEST, LOUDEST, PROUDEST**
...THE NEXT FIRST.

This is a **PLACE** where VOICES are **AMPLIFIED,**
ASPIRATIONS are VISUALISED,
and **FUTURE** SUCCESS is INCUBATED.

Behind its doors our **DESTINIES** LIE...

In its pages, our new **LEGACIES** are WRITTEN;
and in its **DIVERSITY**, our unity FLOURISHES.

THIS IS THE PLACE where "what if" becomes
"WHAT IS"; where "if" becomes "WHEN";
and "could" becomes "CAN" .

THE NWU is the PLACE where
YOUR BEST has the PLATFORM
TO BECOME BETTER.

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THE SPIRIT OF THE NORTH-WEST UNIVERSITY

The spirit of the North-West University (NWU) is reflected in the way it unlocks the future for people and enables them to find their place in the world.

This spirit runs across all our activities and operations, from our academic offerings to the research we conduct, to our management model, campus structure, student body, community engagement and sports achievements. The “keys” that the university uses to unlock the future for its stakeholders, include the following:

- **Excellence in corporate governance:** In 2007, 2008, 2009, 2010 and 2011, the NWU won first place in the PricewaterhouseCoopers Higher Education Excellence Award for Corporate Governance.
- **Leader in higher education and the business sector:** The NWU’s vice-chancellor plays a leading role in higher education, not only in South Africa, but also internationally. He served as chairperson of Higher Education South Africa (HESA) for 2008 and 2009, vice-chairperson of the Association of Commonwealth Universities (ACU) for the period 2007 to 2009, and chairperson of the ACU from 2009 to 2011. In addition, he was president of the Afrikaanse Handelsinstituut for 2011 and 2012.
- **Unique programmes:** The Centre for Animal Health Studies on the Mafikeng Campus offers the only BScAgric (Animal Health) programme in South Africa that is recognised for registration by the South African Veterinary Council.
- **Top research entities:** In terms of the NWU’s Research Entities Model, the university boasts two centres of excellence, namely the Centre of Excellence for Nutrition and the Centre for Space Research. Both are situated on the Potchefstroom Campus.
- **Entrepreneurial learning:** As from 2013, academic programmes in entrepreneurship include the BCom with Business Management and a module on entrepreneurship in the MBA. BSc Consumer Sciences and BSc IT students do a module on problem solving for business that includes creativity.
- **Focus on internationalisation:** As globalisation is a phenomenon of the modern era, the NWU focuses on internationalisation through its new International Office. This office coordinates and facilitates the internationalisation

efforts of the university, such as student and staff engagements and exchanges, and contracts with regard to academic, research, cultural and sports matters.

- **Royalty fees:** Patents and income from product sales generate around R3 m a year in royalties, licence income and product sales. The NWU holds nine patents in the USA.
- **Sporting excellence:** The NWU boasts a Rugby Institute and a Hockey Academy on the Potchefstroom Campus, a Soccer Institute on the Mafikeng Campus, and a Cricket Academy and Rowing Club on the Vaal Triangle Campus.

The Soccer Institute on the Mafikeng Campus won the USSA soccer title in 2009 and again in 2010, while the Potchefstroom Campus team were crowned the 2011 USSA karate champions for the twelfth consecutive year. This campus's rugby, badminton and women's hockey teams also came first at the USSA Championships in 2011. In 2012, the athletics club won the USSA Championships for the third consecutive year and for the tenth time overall.

In addition, the Mafikeng Campus's body building team won the overall team competition at the USSA championships in 2011, following in the footsteps of the Vaal Triangle Campus team that won the same title in 2010.

- **Sports Village:** A four-star Sports Village on the Potchefstroom Campus accommodates sports teams that train at the university. The Spanish soccer team was the first to make use of this complex when they stayed here during the FIFA World Cup in 2010. The Pampas, which is the Argentine rugby team that won the Vodacom Cup, was housed there in 2011.
- **Top training venue:** In 2011, this university was the preferred training destination of 703 international athletes from 33 countries. These sportsmen and women use the top-of-the-range facilities at the FNB High Performance Institute (HPI) of Sport for preparation and training. The facilities and services include the best-equipped sports gymnasium in Africa and a complete range of sports training, medicine, research, nutrition and psychology services.

In 2011, the HPI was named by the North West Parks and Tourism Board as the province's foremost tourism attraction for 2011 and received a trophy as well as a cheque of R10 000 for services rendered to the province.

In 2011, the institute attracted high-profile sports teams, including the Pampas rugby team from Argentina, the u-19 cricket team and various county cricket teams from England, the Australian cricket team, the South African women's soccer team, Banyana Banyana, the South African sevens rugby team, a French Olympic kayak team and an international triathlon team from Germany.

The university also hosted the North West Cricket international coaching camp and the South African Football Association national goalkeeping coaching camp. In addition, the Davis Cup International Tennis Tournament was hosted twice in 2011, with participating teams from South Africa, the Netherlands and Croatia. Flowing from these successful tennis tournaments, the university also hosts two Junior International Tennis Federation tournaments and the Junior African Tournament during 2012.

- **Centre of specialisation:** The Institute for Sport Science and Development (ISSD) renders scientific support services to the African Continental Cycling Centre (ACCC), the North-West Academy of Sport, the Rugby Institute and Hockey Academy on the Potchefstroom Campus and the Soccer Institute on the Mafikeng Campus. The institute has been a member of the International Association of High Performance Sports Training Centres for the past ten years.
- **World-class cycling tracks:** The construction of an outdoor BMX Supercross cycling track and an indoor area with a banked wooden track for cycling racing (Velodrome) at the Fanie du Toit sports grounds of the Potchefstroom Campus is already underway. National, international and African cyclists and cycling teams will be able to use the tracks for training, skills development and competitions. The Velodrome will be the first and only one of its kind in Africa.

OUR UNIVERSITY

The North-West University officially came into being on 1 January 2004. It was part of the national government's broader plan to transform higher education, with the aim of using resources more effectively and addressing past imbalances.

The institutions that came together to create the NWU were the Potchefstroom University for Christian Higher Education and the University of the North-West. The staff and students of the Sebokeng Campus of the Vista University were also incorporated.

The NWU is a unitary multi-campus institution with campuses spread across two provinces.

These are the Potchefstroom and Mafikeng Campuses in North West and the Vaal Triangle Campus in Gauteng. The Institutional Office (head office) is situated in Potchefstroom in close proximity to the Potchefstroom Campus. Each campus has its unique characteristics.

The **Mafikeng Campus**, for instance, is located in the capital of the North West Province and boasts an international ambience, with



414 international students from 27 different countries enrolled there in 2012.

Situated on the banks of the Vaal River in a proclaimed nature reserve, the **Vaal Triangle Campus**, with its diverse population, boasts a unique environmental setting, with various species of game roaming the campus grounds.

The **Potchefstroom Campus**, which is the largest and oldest NWU campus, is situated in the historic university town of Potchefstroom. Although the majority of full-time undergraduate classes are conducted in Afrikaans, various measures are in place to facilitate and enhance access and success, for instance educational interpreting services into English in certain niche teaching programmes.

EFFECTIVE MANAGEMENT

With specific focus on effective management of the geographically separated campuses of the university, management processes were adopted from business and

innovatively applied to operate the university efficiently. As the NWU emphasises individual accountability, the Institutional Plan is cascaded via a performance management process into individual performance agreements with managers at all levels, and eventually all academic staff.

OUR BRAND IDENTITY

The North-West University's visual identity comprises consistent use of the logo, swoosh, corporate colours, style guides, visual language and concepts approved by the Institutional Corporate Branding and Identity Committee. These guidelines are set out in the Corporate Identity Manual. We also have a brand policy, dealing with processes and rules to follow with regard to marketing and communications material that develop the NWU brand.

OUR LOGO

The inter-locking links symbolise the unity of the merged North-West University and the three colours reflect its vibrant campuses.



OUR MANAGEMENT TEAM: INSTITUTIONAL OFFICE

As a result of the geographical distribution of its campuses, the NWU has adopted a two-tier management model suited to its operations.

This model consists of a core institutional layer that ensures university-wide consistency in policies, systems and procedures, and the three campuses that operate as decentralised and coordinated business units.

Comprising ten members, the Institutional Management is the executive arm of the NWU. Dr Theuns Eloff, the **vice-chancellor**, is the NWU's chief executive and accounting officer, responsible to the NWU Council for the institution's overall performance.



The members of the Institutional Management are at the back from left Prof Thanyani Mariba (the rector of the Vaal Triangle Campus), Prof Johan Rost (Executive Director: Finance and Facilities), Prof Dan Kgwadi (the rector of the Mafikeng Campus), Prof Herman van Schalkwyk (the rector of the Potchefstroom Campus), Mr Victor Mothobi (Executive Director: Human Capital) and Ms Phumzile Mmope (Executive Director: Corporate Affairs and Relations). In the front are from left Prof Martin Oosthuizen (Deputy Vice-Chancellor: Teaching-Learning), Prof Frikkie van Niekerk (Deputy Vice-Chancellor: Research, Innovation and Technology), Dr Theuns Eloff (vice-chancellor of the NWU), and Prof Themba Mosia (the institutional registrar of the NWU).

OUR MANAGEMENT TEAM: MAFIKENG CAMPUS

Prof Dan Kgwadi, rector of the Mafikeng Campus, stands at the helm of a diverse and focused campus management team. He is supported by a vice-rector, the deans of the various faculties, a campus registrar and directors of support departments.



PROF DAN KGWADI
Campus Rector



VACANT
Vice-Rector: Academic,
Teaching-Learning
and Research



MR ROBERT KETTLES
Campus Registrar



PROF MASHUDU MASELESELE
Dean: Faculty of
Agriculture, Science
and Technology



PROF SONIA SWANEPOEL
Dean: Faculty of
Commerce
and Administration



PROF DAWID GERICKE
Dean: Faculty
of Education



PROF PETRUS BOTHA
Dean: Faculty of
Human and Social
Sciences



PROF MELVIN MBAO
Dean: Faculty of Law



DR SAM THEKISO
Dean: Student Affairs



MR ETIENNE MOSTERT
Director: Finance



MR KOOS DEGENAAR
Director: Marketing
and Communication



MR LESTER MPOLOKENG
Executive Manager:
Office of the rector

OUR MANAGEMENT TEAM: POTCHEFSTROOM CAMPUS

Harnessing the first-rate expertise of his campus management team, Prof Herman van Schalkwyk leads the way on the Potchefstroom Campus. He is assisted by two vice-rectors, Prof Mariëtte Lowes (Vice-Rector: Teaching-Learning) and Prof Amanda Lourens (Vice-Rector: Research and Planning), the deans of the various faculties, a campus registrar and directors of support departments.



PROF HERMAN
VAN SCHALKWYK
Campus Rector



PROF MARIËTTE LOWES
**Vice-Rector:
Teaching-Learning**



PROF AMANDA LOURENS
**Vice-Rector:
Research and Planning**



MS DOROTHY AUGUST
Campus Registrar



PROF KOBUS PIENAAR
**Dean: Faculty of
Natural Sciences**



PROF FIKA JANSE VAN
RENSBURG
Dean: Faculty of Theology



PROF ROBERT
BALFOUR
**Dean: Faculty of
Education Sciences**



VACANT
**Dean: Faculty
of Economic and
Management Sciences**



PROF FRANCOIS VENTER
Dean: Faculty
of Law



PROF LJ GROBLER
Acting Dean:
Faculty of
Engineering



PROF AWIE KOTZÉ
Dean: Faculty of
Health Sciences



PROF JAN SWANEPOEL
Dean: Faculty of Arts



PROF RIKUS FICK
Dean of Students



MR BOBO VAN DER WESTHUIZEN
Chief Director:
Finance and Facilities



MR THEO CLOETE
Director: Marketing
and Communication

THIS IS A PLACE THAT GIVES
A **VOICE** TO WHO YOU
DARE TO BE

OUR MANAGEMENT TEAM: VAAL TRIANGLE CAMPUS

Prof Thanyani Mariba is the rector of the Vaal Triangle Campus. With him on the frontline are Prof Linda du Plessis, Vice-Rector: Academic, Quality and Planning, a campus registrar, the deans of the two faculties, and directors of support departments.



PROF THANYANI
MARIBA
Campus Rector



PROF LINDA DU PLESSIS
Vice-Rector: Academic,
Quality and Planning



MS ELBIE STEYN
Campus Registrar



PROF TINIE THERON
Dean: Faculty
of Humanities



PROF HERMAN VAN DER MERWE
Dean: Faculty of Economic
Sciences and Information Technology



DR JOHN MALOMA
Director:
Marketing and
Communication



MR HERMAN STEYN
Chief Director:
Finance and Facilities

THE NWU IS STILL ON THE ROAD TO SUCCESS

Looking at the summary of the NWU's achievements with regard to its core business, it is evident that the achievement curve has increased during the past few years. This applies to almost all achievement indicators, as shown in the table below.

	2007	2008	2009	2010	2011*
Total student enrolment	44 726	47 008	50 589	55 732	56 641
- Contact	26 075	25 740	26 853	29 243	31 663
- Distance	18 651	21 268	23 736	26 489	24 978
Undergraduate pass rate	79,5%	81,2%	83,6%	83,5%	85,2%
Graduation rate	25%	26%	27%	27%	27%
Degrees and diplomas awarded	11 345	12 337	13 445	15 083	15 093
Master's degrees awarded	618	583	659	633	639
PhDs awarded	124	100	123	129	115
Article equivalents published (total)	376	513	452,5	578,2	772,6
NRF rated researchers	95	103	116	117	125
Total research output	1 061	1 083	1 190	1 318	1 483
Total income	R1 436m	R1 671m	R1 827m	R2 002m	R2 318
Surplus (recurrent items)	R66m	R82m	R58m	R37m	R63m
Staff cost/total cost	50,1%	48,8%	50,7%	52,8%	52,4%
Self-generated income	R542m	R644m	R647m	R642m	R751m
% of income from government	39,8%	40,0%	41,5%	44,6%	43,1%
% of income from tuition fees	21,4%	20,3%	22,4%	23,6%	24,7%
Capital expenditure on upgradings	R51,0m	R69,2m	R81,9m	R60,5m	R53,2m

* Data not yet finally audited

OUR ACADEMIC OFFERINGS

At the North-West University, it is not so much about education as the opportunities that education brings. In other words, the NWU offers more than just an education: we offer people a place in the world.

Our academic offering provides students with great choice and flexibility, enabling them to fulfil their full potential and start developing their careers.

Apart from offering a number of academic programmes that cannot be found at other South African universities, the wide variety of campus programmes are also complemented by the NWU's geographic reach and 35 facilitation centres and 110 examination centres for open distance learning students throughout South Africa and Namibia.

INTERPRETING SERVICES

In line with our policy of functional multilingualism, the NWU provides academic interpreting services for students. The main service is rendered on the Potchefstroom Campus, where approximately 30% of all modules are being interpreted.

The most important reason for offering the interpreting service on this predominantly Afrikaans-speaking campus is to facilitate access for non-Afrikaans-speaking students in certain fields of study.

Interpreting services are also provided on the Mafikeng and Vaal Triangle Campuses in certain modules. At the Mafikeng Campus, interpreting takes place from English to Setswana, and on the Vaal Triangle Campus interpreting is being done alternately from Afrikaans to English and English to Afrikaans.

DEVELOPING CRITICAL SKILLS FOR THE COUNTRY

The university focuses on developing scarce and strategic skills:

- The NWU is the only university to offer a Master of Engineering in Nuclear Engineering, and also – from 2013 – a master's degree in Applied Positive Psychology.
- The NWU is currently the only university in the country with an accredited IKS teaching programme at both under- and postgraduate level.
- The NWU has the largest open distance learning teacher education unit in the country and offers education programmes for already employed teachers. In 2011, the NWU awarded 7 357 education qualifications, the majority to teachers who are looking to improve their qualifications.

NWU CAMPUSES

Each of the NWU's three campuses has definite strengths and capabilities, in line with the university's strategic direction of both unity and diversity.

MAFIKENG CAMPUS

The Mafikeng Campus is the second largest of the NWU's three campuses, with 9 211 students enrolled in 2011, of whom 1 517 were enrolled for distance programmes. It has five faculties, namely Agriculture, Science and Technology, Human and Social Sciences,

Education, Commerce and Administration, and Law.

The campus offers various unique programmes:

Transport Economics and Logistics Management: In response to identified critical scarce skills in South Africa, a programme in Transport Economics and Logistics Management was designed and has been offered on this campus since 2003. This programme has already produced in excess of 170 graduates (most of whom are currently employed in relevant industries), and the honours programmes are currently being developed.

Animal Health: The Dale Beighle Centre for Animal Health Studies on the Mafikeng Campus offers two qualifications that are unique in South Africa. These are the only full-time BScAgric (Animal Health) programme and the only residential programme for a Diploma in Animal Health recognised for registration by the South African Veterinary Council.

The large Animal Health complex houses amongst others a modern animal clinic to enhance the undergraduate teaching programme, and large diagnostic and research laboratories to facilitate postgraduate studies.

Indigenous Knowledge Systems (IKS): The geographical location of the Mafikeng Campus provides the IKS programme with a unique opportunity for IKS research and training in rural development and arid area studies.

The NWU is currently the only university in the country with an accredited IKS teaching programme at both under- and postgraduate levels. Indigenous knowledge is local knowledge and practices that are unique to and developed within a particular culture or society.

Centre for Applied Radiation Science and Technology (CARST): This centre was established in 1998 as a collaboration between industrial stakeholders in the nuclear industry (Necsa, PBMR, Eskom, iThemba Labs and NNR) and the North-West University.

A career in sports: As mentioned in the next section – “Our students” – a Soccer Institute was established on the Mafikeng Campus at the beginning of 2007. In addition to soccer training, students also receive academic training. They can for instance enrol for a bachelor degree of their choice, or a three-year diploma in Sports Sciences. Future plans are to establish a soccer-specific sports science programme at both under- and postgraduate level.

POTCHEFSTROOM CAMPUS

This largest of the NWU's campuses had 41 894 students registered in 2011, of whom 23 111 were enrolled for distance programmes. The Potchefstroom Campus also accounts for most of the NWU's research output and National Research Foundation-rated researchers. This campus has eight faculties: Arts, Natural Sciences, Theology, Education Sciences, Economic and Management Sciences, Law, Engineering, and Health Sciences. The campus has 20 research entities and a number of centres and institutes where all research activities take place.

International recognition: The Honours BSc Quantitative Risk Management (QRM) programme of the Centre for Business Mathematics and Informatics® (Centre for BMI) has received international recognition from two global professional risk management bodies.



Excellent programmes: In recent years, experts from Australia, the Netherlands, Uganda and England declared the programmes in the School of Continuing Teacher Education (SCTE) to be of a standard that compares to the best in the world.

Academics excel: A seasoned linguist and director of the School of Languages was elected as the new national chairman of the South African Academy for Science and Art. In the SA Academy's 102 years' existence, he is the first to be elected from the ranks of Potchefstroom.

The director of the School of Accounting Sciences has been named one of the country's most influential women in education and training. She received the award in the business magazine, CEO's (Celebrating Excellence in Organisations) competition to honour women in South Africa's contribution in the business world and the government.

Sought-after awards: The NWU is the only university in the country that has received energy awards from the South African National Energy Association. These awards were made to the Clean Coal Project of the School of Chemical and Minerals Engineering and the Power Alert and Power Watch projects of the School of Mechanical Engineering.

World-class fabrication laboratory: The Faculty of Engineering boasts a world-class fabrication laboratory (Fablab) where people can use technology to transform almost any idea into a design.

Soaring globally: The 18-m wingspan JS1-Revelation glider, designed by a lecturer of the School for Mechanical Engineering, was awarded an Aircraft Type Certification by the SA Civil Aviation Authority (SACAA) in 2010. It was the first time that such a certificate was awarded on the African continent.

Students excel nationally and internationally: After participating in a competition organised by the American Society of Engineering Managers, the doctoral thesis of a postgraduate student of the Engineering

Faculty was announced one of the three best theses in the world.

In addition, an engineering student won overall first place in the 2010 annual student project competition of the South African Institute of Electrical Engineers (SAIEE).

After writing the SAICA 2012 national exams (Part 1), the campus's Chartered Accountant (CA) results were once again exceptional, with a pass rate of 88% against the country's average of 78%.

Furthermore, two master's students from the School of Economics were chosen for the South Africa Vrije Universiteit Strategic Alliances Skills programme at the Vrije Universiteit in Amsterdam.

Graphic Design students recently scooped many of the major national design prizes, contributing to the feat that the magazine, *Finweek*, named the NWU one of five top Graphic Design educational institutions for 2010.

CTeXT®: The Centre for Text Technology (CTeXT®) does research on human language technology and develops language technology products for the South African languages.

Human language technology makes the interaction between people and machines (computers) easier by allowing people to communicate with computers in natural languages (our normal languages such as isiZulu or Afrikaans). It also teaches computers to understand and produce human language (speech and text), so people can have access to new technologies in the language of their choice.

International collaboration: South African Power Quality Initiative (SAPQI), founded by lecturers of the School for Electrical, Electronic and Computer Engineering, focuses on the effective utilisation of electrical energy and strives towards formal collaboration with institutions such as Integral Energy in Australia and the Leonardo Power Quality Initiative in Europe.

Taking training to a new level: The Faculty of Health Sciences received a medical simulation dummy that can be used to train medical and pharmaceutical students, and opened a ultra-modern simulation pharmacy and a Unit for Training in Primary Health Care. With these steps, they elevated the training of pharmacists in South Africa to an entirely new level.

In addition, the faculty opened a Centre for Child, Youth and Family Studies in Wellington in the Western Cape, already boasting more than 200 postgraduate students.

Pioneers in extrusion: The Centre of Excellence in Advanced Manufacturing, which was established by the Department of Trade and Industry at the School for Mechanical Engineering, helps small companies in its Extrusion Laboratory to develop, manufacture and test new products that can be produced by using extrusion.

Unique drug delivery technology: Researchers from the Unit for Drug Research and Development have developed and improved a unique drug delivery technology, known as Pheroid™, for more effective treatment of diseases such as malaria and for the delivery of large drug molecules across the skin.

International player in HIV/Aids treatment: Another cutting-edge accomplishment is the

university's participation in an international consortium that won a \$7 billion tender to contribute to the United States' President's Emergency Plan for Aids Relief (PEPFAR).

World Health Organisation Collaborating Centre: The School of Pharmacy's Research Institute for Industrial Pharmacy – incorporating the Centre for Quality Assurance of Medicines – is designated by the World Health Organisation (WHO) as a WHO Collaborating Centre for the Quality Assurance of Medicines.

VAAL TRIANGLE CAMPUS

Although the smallest of the three campuses, with 5 536 registered students in 2011, this campus, situated on the banks of the Vaal River, is a powerhouse of academic expertise. The campus has two faculties, namely the Faculty of Humanities with four schools, and the Faculty of Economic Sciences and Information Technology with three schools.

Teaching-learning activities: To support its students, the campus took the following steps: Supplemental instruction (SI) was extended to include 149 modules, and 205 SI leaders are employed. (More about SI on page 16) The campus also increased the number of sites for the Learning Management System, known as eFundi, to 565 in 2011. In addition, a peer mentoring programme for first-year students was introduced to all residences in 2012.



Enhancing language skills: A Writing Laboratory was set up by the School of Languages to help students use language more effectively. Here the students are assisted with argumentation skills, paragraphing, referencing and conceptual structuring to assist with the process of academic writing.

Research is a focal point of the campus's academic activities. The campus has two research focus areas, namely Understanding and Processing Language in Complex Settings (UPSET) and Enabling Optimal Expression of Individual, Social and Institutional Potential (Optentia). These entities are both situated within the Faculty of Humanities.

UPSET's vision is to systematically investigate how people understand and process language in complex settings, specifically working in the domains of language practice (translation studies) and multilingualism.

OPTENTIA aims to develop knowledge about how individual, social and institutional potential can be optimally expressed and to make this knowledge available to individuals and decision makers.

The School of Behavioural Sciences aims to implement a master's programme in Applied Positive Psychology in 2013, which will be supported by Optentia.

The establishment of another entity, Multilingual Speech Technology (MUST), as a research focus area – this time within the Faculty of Economic Sciences and Information Technology – is also envisaged.

In addition to the above-mentioned research entities, six other potential niche areas were identified:

- Resilience Research Centre
- The Cultural Dynamics of Water (CuDyWat)
- Ancient Texts
- Enterprise Knowledge and Systems
- Impact Assessment
- Applied Risk Management (ARM)

Playing serious games: The Serious Games Institute SA, which is a joint venture between

Coventry University in the United Kingdom and the Faculty of Economic Sciences and Information Technology, was launched in 2011. By using special simulation games, people are trained in subject fields such as socio-economics, regional planning, and risk assurance.

The aim of the institute is to become an international centre of excellence for serious games and a model of best practice for regional development through technology innovation.

Getting down to business: The Vaal Triangle Campus conducts its Master's Degree in Business Administration (MBA) through the Potchefstroom Business School (PBS). In addition to the MBA, a Middle Management Programme (MMP) and an Advanced Management Programme (AMP) are also offered. Companies that have participated in these programmes include Absa, Eskom, Arcelor Mittal, Omnia, the South African Football Association, Samancor, Telkom, Transnet and Sasol.

The Vaal Triangle Campus also has a Skills Development Unit (SDU), which offers short courses and workshops in various fields, such as project management, labour relations, and management and computer skills. Local governments, the Gauteng Department of Education and the South African Football Association are a few of the companies that have benefited from these programmes.

PROMOTING ACADEMIC PERFORMANCE

An important factor of academic performance at university level is well-developed skills in learning, reading, life skills and academic literacy.

The NWU offers several programmes to help students overcome skills gaps.

One of these entails academic literacy and skills tests undertaken by all first-year students of the NWU to determine whether they should benefit from the additional academic literacy module offered to all first years, as well as other skills programmes offered by the NWU.

A compulsory module in academic literacy is offered on all NWU campuses. In addition, other compulsory modules, helping students to understand the world as a set of related systems, have been phased into all academic programmes at the second- and third-year levels.

The NWU also invested in the institution-wide implementation of Supplemental Instruction (SI)

on all campuses. SI is a student academic support system, developed and used worldwide.

SI provides extra group study sessions in the difficult modules, with students working together to consolidate key concepts and develop effective study strategies. These sessions are facilitated by SI leaders, who are students who have already successfully completed the targeted module.



OUR STUDENTS

The NWU believes in the all-round enabling of students so that they are well prepared to embark on successful careers, contribute to society and live balanced, purposeful lives.

The NWU wants to be the place where students not only reach academic excellence, but also give wings to their imaginations, visualise their aspirations and incubate future success in all of life's spheres. Campus life is therefore geared to holistic growth and development, as is clear from the wide range of cultural, sport, counselling and well-being activities in which students are encouraged to participate.

STUDENT PROFILE

Diversity is the defining characteristic of the NWU's student profile. This is to be expected, considering that the university has three campuses spread across two provinces. It is also welcomed, as it reflects the dynamics and demographics of South African society.

The NWU sees this as a competitive advantage for students, because by working and learning together, they develop strength from their diversity and grow in their ability to communicate and interact.

In 2011, the NWU student profile looked like this:

Campus	Students
Mafikeng	9 211
Potchefstroom	41 894
Vaal Triangle	5 536
TOTAL	56 641

UNDERGRADUATE VERSUS POSTGRADUATE

By far the majority of students are undergraduate students, with 52 908 studying towards bachelor's degrees or diplomas in 2011. However, the NWU also had significant numbers of postgraduate students:

Master's students	2 774
Doctoral students	959
TOTAL	3 733

STUDY CHOICES

In 2011, some of the study choices of students studying at the NWU were the following:

Major field of study	Contact	Distance	Total (%)
Science, engineering, technology	9 881	681	10 562
Business/management	9 034	24	9 058
Education	4 096	21 399	25 496
Other humanities	8 652	2 874	11 525

This profile can be expected to shift more towards the natural sciences and commercial disciplines, in line with the NWU's Institutional Plan.

STUDENT FACILITIES AND INFRASTRUCTURE

The NWU is investing extensively in student facilities and infrastructure, with the aim of offering the best possible learning and extracurricular development opportunities to students.

As part of the NWU's large-scale infrastructure developments, housing for postgraduate students, a lecture hall complex and an Education building were completed on the **Mafikeng Campus** during 2011.

Other developments on this campus include the first phase of the upgrading of the James Moroka residence, and alterations to the library.

The following projects will be completed in 2012: the first phase of a Science building with laboratories, additions to the Chris Hani building for the Soccer Institute, the final phase of the James Moroka residence upgrading and a large reading laboratory. Additions to the Animal Health Complex in the form of laboratories are nearing completion and a new conference centre is also envisaged for the campus.

On the **Potchefstroom Campus** a new building for the School for Continued Teacher Education was opened and a ultra-modern R106 million engineering complex and a new building for the Faculty of Economic and Management Sciences were completed in 2011. A new men's residence will be completed in 2012 and various undergraduate laboratories for Health and Life Sciences will also be refurbished.

On the **Vaal Triangle Campus**, housing for postgraduate students, a student centre, technical workshops and a building for Educational Sciences were built. Lottery funds

were also used to upgrade the gymnasium and to build two new netball courts and a basketball court.

A new office block was completed during 2012 and the construction of a new library is underway and will be completed in 2013.

HIV/Aids

The NWU's HIV/Aids programme for staff forms part of the university's Employee Health and Wellness Programme, while the programme for students falls under the Institutional Director: Student Development and Sport.

HIV/Aids services are available at all campuses and the campus health clinics provide voluntary counselling and testing (VCT) to both staff and students.

The NWU also has a thriving peer help system, through which trained student volunteers help raise awareness about HIV/Aids among students and arrange programmes for voluntary counselling and testing.



CAREER CENTRE

A Career Centre with representatives on each campus assists students with career-related enquiries, ranging from career planning and information concerning possible job opportunities to CV writing and interviewing techniques. Career fairs, attracting prominent employers, are also held regularly on the campuses.

In 2011, members of the South African Graduate Recruiters Association voted the service that the NWU Career Centre offers to prospective employers the third best among all 23 tertiary institutions in South Africa.

EXTRACURRICULAR DEVELOPMENT

The NWU offers students many opportunities to develop their talents by participating in sport, arts, cultural and other extramural activities.

• CULTURAL ACTIVITIES

The **Mafikeng Campus** has distinguished itself in art, music, choral and multicultural drama. In 2011, the campus choir participated at the Sedibeng Choral Festival and the National Choir Festival, earning third and second position respectively.

The **Potchefstroom Campus** hosts the renowned NWU-PUK Choir, the Boulevard Harmonists and the NWU-PUK Serenaders.

In 2011 the university choir was crowned the overall winners at the Prague International Christmas and Choir Festival, while the Serenaders won the national Old Mutual choir competition, and received the award for best conductor at this event.

In another feat, the PUK Symphony Orchestra successfully presented their first full performance in the Conservatory Hall. In addition, the campus also boasts the Buzzin' Brass Ensemble, the Thalia Drama Society, the Disfunctional Beat Dance Society and Divaco, a cultural society depicting the Cape culture through theatre, dancing and music.

The **Vaal Triangle Campus** is in the final stages of establishing a radio station. The campus choir, *The Voices of the River*, is well vested

and takes part in several regional competitions. An annual Cultural Festival is one of the highlights on the campus calendar with all three NWU campuses taking part.

• SPORT

Sport continues to be a core strength of the NWU's non-academic life. The university can, based on achievements on the sports field, justifiably claim to be one of the top sports universities in South Africa.

To strengthen this reputation, the NWU focuses on seven major sports codes, namely athletics, cricket, hockey, netball, rugby, soccer and tennis. In addition, the university offers opportunities for participation in 30 other sports and recreational activities, including cycling, karate, softball, squash, rock-climbing, table tennis and competitive chess.

Smaller sports codes

Smaller sports codes supported on the Mafikeng Campus include chess, karate, volleyball, ju-jitsu, table tennis, boxing, aerobics, badminton, softball and bodybuilding.

Some of these sports codes attained several achievements in 2010/2011. The **aerobics** and **boxing** teams came third at the 2011 USSA Championships, with the boxing club scooping four individual gold medals for the second consecutive year, and the aerobics team returning home with one gold, one silver and two bronze medals.

At the SA National Ju-Jitsu Championships, two members of the **ju-jitsu** team won gold and silver medals.

Several sports stars were also selected for the South African ju-jitsu, and USSA **softball** and **table tennis** teams. One student made the SA **Wheelchair Basketball** team and represented SA internationally against Mexico in 2012 as a qualifier for the Olympic Games.

To top it all, the Mafikeng Campus **body-building** team were crowned overall winners at the 2011 USSA Championships, while the men's team of the Vaal Triangle Campus came first.

Another popular sports code on the Vaal Triangle is **dance**, with the team comprising female and male dancers. The dance team successfully represented the campus at the national USSA week in Bloemfontein for the first time and also participated in the national club competition.

Due to the ideal location of the Vaal Triangle Campus on the banks of the Vaal River, the long-term vision is to develop **water sport** as a niche sports code. To achieve this vision, canoe and rowing clubs were established and the rowing club was registered with Rowing SA.

Members of the NWU Vaal Watuni Canoe Club took part in several competitions, including the Duzi Canoe Marathon and the grueling Berg River Ultra Marathon.

The Vaal Triangle Campus recently included small sports codes such as basketball, chess, seven's rugby and a marathon in their new residence league structure.

The smaller sports codes on the Potchefstroom Campus performed well at the 2011 USSA Championships. The **badminton** team came first, the **squash** team second, **gymnastics**

third, and **golf** fifth. For the first time ever, the campus entered 20 **swimmers** in the USSA Championships.

This team ended sixth, with one team member being selected for the national USSA team. In addition, a paralympic swimmer was included in the South African team.

One of the most successful smaller sports codes at the NWU is **karate**.

In 2011, the karate club of the Potchefstroom Campus was crowned as the USSA champions for the twelfth consecutive year.

Four karatekas participated in the Commonwealth Games in New Zealand, where one received a bronze medal in the senior division and one a silver medal in the u-21 division.

The silver medallist was also selected to participate in the World Karate Championships. The club's coach also coached the national karate team.

The Mafikeng Campus's karate team won four bronze medals at the USSA Championships.



Major sports codes

One of the major sports codes supported on the NWU's Potchefstroom Campus is **rugby**, and this campus boasts a highly acclaimed Rugby Institute, of which three players were included in the South African u-20 team in 2011. During the same year, the rugby team triumphed as South Africa's club champions and won the annual intervarsity when they gave the team from the University of the Free State (UFS) a thrashing for the seventh consecutive year.

The rugby team of the Vaal Triangle Campus took part in the USSA championships for the first time in 2011 and received a trophy in recognition of their performance. In addition, five teams participated in the Falcons Super League, with one player elected for the Falcons Senior Vodacom Cup team. The NWU Vaal rugby club plans to participate in the Varsity Shield in 2012.

Athletics is a popular major sports code on the Potchefstroom Campus.

In 2011, five athletes represented South Africa at junior level, while 13 members represented USSA at the International University

Sports Federation's World Student Games in China.

The campus's Senior Sportswoman of the Year pulled off the best javelin performance ever by a South African female javelin thrower at the International Association of Athletics Federations (IAAF) World Championship in Korea, where she won a bronze medal with a new South African, African and Commonwealth record distance.

Other world-class achievements in 2011 include winning a bronze medal at the World Student Games and two silver medals at the African Games. A disabled athlete won a silver medal in the F42 class and two of the club's sprinters were members of the winning relay team at the World Student Games.

In addition, a triple jump athlete caused one of the oldest South African records to tumble after 19 years.

Then, in 2012, the club's athletes dominated once again at the USSA Championships, winning the tournament for the third consecutive year. In the nineteen years that this competition has been held, the team won the competition ten times.

At this tournament, the team scooped 35 medals – 14 gold, 10 silver and 11 bronze. They came second in the women's race walking team competition as well as in the men's 21 km team competition, and one of the athletes equaled the South African 100 m record, thereby qualifying for the Olympic Games.

An athletic club is being developed on the Vaal Triangle Campus as part of a new sporting initiative.

The NWU Vaal ladies **hockey** team participated in the USSA championships (B division) for the first time in 2011 and are the reigning champions of the Southern Gauteng Hockey League.

In 2011, the Mafikeng Campus's **cricket** team came second in the USSA B section. After participating in the Gauteng Senior Ladies League for the first time, the ladies cricket



team on the Vaal Triangle Campus won this league. Two players were elected to represent the Senior Gauteng ladies cricket team. The men's cricket team retained their position in the competitive A League of the USSA Cricket and is ranked among the top eight university teams in the country, with one player chosen as the USSA Player of the Tournament and elected for the SA Student side.

The Potchefstroom Campus hosted the National USSA **Netball** Tournament in 2011. During this year members of the campus's netball team performed well on national level.

The Vaal Triangle Campus' netball team came third in the USSA B division in 2011. Participation in netball increased to such an extent that the campus now participates in the North-West Senior League, the local Vaal Triangle League and the local Action Netball League. Several players represented the region at the national senior provincial competition.

As one of its strategic priorities, the NWU established a **Soccer** Institute on its Mafikeng Campus in 2007. There are currently 48 students enrolled at the Institute.

In 2010, this institute won the USSA championship for the second year running, becoming

the first institute that was able to win this tournament consecutively. Seven players from the institute were selected for the national USSA team, one for the u-23 national team and four players for the u-21 team. In addition, two players were signed by professional teams.

Two members of the soccer team on the Potchefstroom Campus were selected for the u-23 national soccer team.

On the Vaal Triangle Campus, the women's soccer team maintained their status in the Sasol league and did not need to qualify for the 2011/2012 season.

The men's soccer team participated in the USSA Gauteng leagues and in the South African Breweries League where they finished in third position.

Four players were selected for the SAFA Sedi-beng side to participate in a national u-23 tournament. Two players were selected for the SAB u-21 Gauteng side, while two u-19 players were selected for the Gauteng team that participated at the South African Games.

** The statistics indicated in this section were not audited.*

AS A MATTER OF FACT...

- More than 700 international athletes from various countries train at the NWU's sports facilities per season.
- The NWU supports seven major sports codes, namely athletics, cricket, hockey, netball, rugby, soccer and tennis, and also offers 30 smaller sports and recreational activities, ranging from competitive chess to rock-climbing, karate and softball.
- The NWU boasts a Rugby Institute and a Hockey Academy on the Potchefstroom Campus, a Soccer Institute on the Mafikeng Campus, and a Cricket Academy and a Rowing Club on the Vaal Triangle Campus.
- One of the NWU's javelin throwers holds the World Student title. She also holds the South African, African and Commonwealth records.

RESEARCH, INNOVATION AND COMMUNITY ENGAGEMENT

To enable the NWU to become a balanced teaching-learning and research university where research finds its rightful place, the university focuses its research and innovation strategy to optimise resources and ensure maximum impact of interventions.

Research at the NWU is organised according to a Research Entities Model.

The underlying principle in the identification and development of research entities is that the university and each campus develop research strengths, taking into account existing and relevant expertise and potential, and the needs of the region and the country, within the framework of the long-term research and innovation strategic plan.

The “entry level” research model is that of a niche area, followed by a focus area, then a unit and ultimately a centre of excellence.

The four models have specific criteria attached to them, and should show increasing capacity, output, relevance and national and international recognition.

The NWU currently has the following research entities:

CENTRES OF EXCELLENCE

- Centre of Excellence for Nutrition (CEN)
- Centre of Excellence for Space Research

UNITS:

- Unit for Energy Systems

- Unit for Reformed Theology and the Development of the South African Society
- Unit for Business Mathematics and Informatics
- Unit for Languages and Literature in the South African Context
- Unit for Environmental Sciences and Management
- Unit: Development in the South African Constitutional State
- Africa Unit for Transdisciplinary Health Research (AUTHeR)
- WorkWell: Research Unit for Economic and Management Sciences
- Unit for Drug Research and Development

FOCUS AREAS:

- Chemical Resource Beneficiation
- Teaching-Learning Organisations
- Social Transformation
- Understanding and Processing Language in Complex Settings (UPSET)
- Hypertension in Africa Research Team (HART)
- Physical Activity Sport and Recreation (PhASRec)
- Tourism Research in Economic Environs and Society (TREES)
- Enabling Optimal Expression of Individual, Social and Institutional Potential (OPTENTIA)

NICHE AREAS:

- Medicine Usage in South Africa (MUSA)
- Population and Health
- Food Security and Safety in the North-West Province
- Musical Arts in South Africa: Resources and Applications
- Trade and Development (TRADE)

RESEARCH UNDERPINS INNOVATION

On average, the university's academic staff members spend 40% of their time conducting research, which is in line with the Institutional Plan. There has also been a marked increase in the number of NWU researchers with ratings from the National Research Foundation (NRF). Having submitted applications for NRF rating in 2011/2012, the university now has 125 researchers with NRF ratings:

Researchers with A ratings	2
with B ratings	16
with C ratings	89
with P ratings	0
with L ratings	1
with Y ratings	17

BUILDING RESEARCH CAPACITY

To encourage more academic staff to apply for ratings and raise their research output, the NWU is conducting intensive research capacity building for researchers. Training is underway to enhance the research skills of academic staff, with the emphasis on preparing abstracts and conference papers, article writing and best practices in preparing research questionnaires. Research capacity-building workshops are held on all three campuses.

POSTGRADUATE RECRUITMENT

In addition, the university is broadening its pool of research skills by actively recruiting greater numbers of master's and doctoral students. In 2011, 2 774 students were registered for master's and 959 for doctoral studies.

INCREASED POSTGRADUATE FUNDING

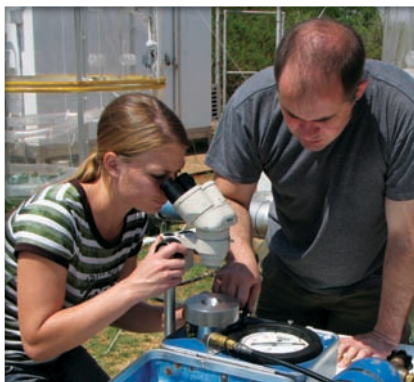
Master's students at the NWU can qualify for bursaries worth R22 000, while doc-

toral students qualify for R48 000 plus an additional R11 000, subject to certain conditions. In 2011, the university had 89 postdoctoral students from countries such as India, Finland, Hungary, the Ukraine, the Netherlands, Germany and a number of African countries.

THRIP income: In 2011, the NWU was again granted the most THRIP income of all universities in SA. This is indicative of the innovative and relevant research done in close association with industry in the country.

Researchers on the forefront: Several NWU researchers are sharing their expertise with the world.

- The qualifications of the director of the School for Biokinetics, Recreation and Sport on the Potchefstroom Campus put him among the top 14 anthropometrists in the world. He also received a prize from the South African Academy for Science and Art for his contributions in the field of preventive medicine.
- A top academic and former director of the Centre of Excellence for Nutrition was the only scientist from Africa invited by the World Health Organisation to serve on their Nutrition Guidance Expert Advisory Group. She was also nominated Secretary General of the Academy of Science of South Africa (ASSAf).



- A lecturer in the School of Chemical and Mineral Engineering was the only scientist from Africa to be invited to serve as a consultant at the Food and Agriculture Organisation (FAO) in Rome, Italy.

- A scientist of the Centre of Excellence for Space Research was invited by the National Research Foundation to represent South Africa at COSPAR, the international committee for space research. He was also invited to serve on the steering committee of the International Space Weather Initiative (ISWI).

- Two scientists of the Centre of Excellence for Space Research were part of an international team of scientists who was awarded by NASA for its contributions to the success of the Ulysses space craft mission.

- An expert from the School of Environmental Sciences was elected chairperson of an international committee of the United Nations' Convention to Combat Desertification. He also played an important role as moderator at the Climate Summit, COP17 in Durban at the end of 2011.

Awards for researchers: Several NWU researchers won national and international awards.

- The director of the Hypertension in Africa Research Team was awarded a Women in Science Award for young women who excel in life sciences, as well as the sought after Meiring Naudé medal from the Council of the Royal Society of South Africa, which is awarded annually to outstanding young scientists.

- An expert in the Faculty of Law received the prestigious Presidents' rating from the National Research Foundation which implies that he is recognised internationally as having the potential of becoming a future leader in his field.

- A researcher in the Africa Unit for Transdisciplinary Health Research (AUTHeR) was nominated for recognition by the International Biographical Centre in Cambridge, England, as one of the Top 100 Health Professionals of 2010.

- A lecturer at the School of Mechanical and Nuclear Engineering on the Potchefstroom Campus received the Academy of Sciences for the Developing World regional award in Nairobi, Kenya for his work on a series of unique computer animations in Mathematics and Physical Science.

- A group of astronomers from the Potchefstroom Campus is part of the transnational High-Energy Stereoscopic System (HESS) research group that won both the Descartes Prize for Science and the Rossi Prize.

Centre for High Performance Computing:

The NWU Centre for High Performance Computing (CHPC) stands out for the high quality of its experimental equipment, which is used for computational-intensive research in a wide range of disciplines.

Exciting new field of research: A group from the School of Physical and Chemical Sciences researches the use of femtosecond lasers to control chemical reactions. Ground-breaking research results show that this technology can be used, among others, to convert greenhouse gases from coal processing to beneficial products and more energy.

Research chairs: In 2012, the Department of Science and Technology (DST) awarded the NWU's Potchefstroom Campus two new research chairs, namely Coal Research, and Early Detection and Prevention of Cardiovascular Disease in Africa. In the same year, Eskom awarded the campus a research chair in

AS A MATTER OF FACT...

- The university started the academic year with 117 NRF-rated researchers and, in February 2011, submitted 31 rating applications to the NRF. Of the 14 applications for new ratings, 13 were accepted. The NRF approved the 17 applications for re-evaluation. Due to the natural attrition of researchers, at the end of December 2011 the NWU had 125 rated researchers.

Emission Control. The campus also has a research chair in Nuclear Engineering, one in Astrophysics and Space Physics, and a DST/SANERI associate chair in Biofuels and Other Clean Alternative Fuels.

DST preclinical and pharmaceutical assessment platform: The DST recently appointed the NWU as host of the Preclinical and Pharmaceutical Assessment platform. This platform supports South African initiatives in drug development.

DST Competence Centre: The DST allocated the third DST Hydrogen Centre of Competency (CoC) to the NWU and the Council for Scientific and Industrial Research (CSIR), with the NWU in the lead position for the first five years.

Metabolomics platform: The NWU hosts the only Metabolomics platform in South Africa, placing the university at the forefront of biotechnological research.

Optimising potential: The Optentia research programme on the Vaal Triangle Campus signed a collaboration agreement with the University of Namibia to conduct joint research regarding the flourishing of individuals and institutions, resilience of children and well-being in families.

Income through innovation: Apart from gaining national and international recognition, the NWU's innovativeness is generating alternative sources of income. Patents and income from product sales generate around R3 million a year.

	2008	2009	2010	2011
Total research output*	1 083	1 190	1 318	1 483
NRF-rated researchers	103	116	117	125

** Includes research master's, PhDs times three and publications (including an estimation of books, conference proceedings and articles).*

Spin-off companies: The NWU uses the formation of innovative small and medium sized spin-off companies as part of its commercialisation strategy and holds equity in some of these.

Since the merger in 2004, the total technology spin-offs increased from nine to 16 in 2011, of which 13 were still active at the time.

Setting new standards: As there is no South African precedent that provides appropriate



benchmarks for the NWU's innovation drive, the university is developing its own targets based on experience. Benchmarks include the number of patents registered in South Africa and abroad, the number of new licence agreements, the income from royalties and product sales, and the number of new spin-off companies, NWU subsidiaries and associated companies.

COMMUNITY ENGAGEMENT

The NWU regards the implementation of expertise as an extended activity of the core business of the university, with community development being part of it. With this in mind, the university enables/ creates the opportunities for its students and staff to implement their expertise in communities through various projects.

Some of the implementation of expertise activities such as short courses, consultation, service rendering, and technology transfer **generate third stream income**. Schools on the NWU campuses are for instance rendering services to local and provincial government in various ways.

Translation tools: On the Potchefstroom Campus, the Centre for Text Technology (CTeXT®) has implemented the multi million rand *Autshumato* project. Autshumato is a series of open-source (free) translation tools, which were funded by the Department of Arts and Culture. These tools aim to improve the speed, accuracy and quality with which documents can be created and translated into all the official South African languages.

The department also appointed CTeXT to set up the Resource Management Agency for the management and distribution of reusable text and speech resources from one central point.

Mining communities: In 2012 the campus also established a Benchmarks Centre for Corporate Social Responsibility (CSR) within its Research Focus Area: Social Transformation. Benefiting mining communities, this centre monitors the standards of CSR in the mining sector.

Government: The university also opened a pro bono office at its Potchefstroom Campus to assist local governments in North West with free advice in environmental manage-

ment and impact studies. This follows after the Department of Environmental Affairs has identified the need, launched an investigation at various South African universities and identified the NWU to open the first office as pilot project.

Export: On the same campus, the School of Economics is contracted by the Department of Trade and Industry to identify realistic export opportunities for South African exporters.

Economic development: The Vaal Triangle Campus signed a memorandum of understanding with the Metsimaholo Local Municipality to cooperate in the interest of social and economic development in the Vaal Triangle Region. This entails assisting with capacity building of councillors and officials and embarking on joint projects aimed at educating communities to understand the issues related to integrated development planning and to empower individuals to participate more effectively in matters related to community development.

Life skills: The Vaal Triangle Campus is also involved with the Molefi Oliphant Institute of Leadership, whose main aim is to create life skills programmes to help professional soccer players in managing their financial affairs. The campus is assisting the institute by conducting research and offering short courses.

Well-being: In addition, the OPTENTIA research programme signed a research collaboration agreement with the University of Namibia. Researchers of the two institutions will collaborate in research projects regarding flourishing of individuals and institutions, resilience of children and well-being in families.

Agriculture and nursing: The Mafikeng Campus's School of Agriculture was awarded a contract worth R800 000 from the Provincial Department of Agriculture to train 40 students on a part-time basis. The school also received R3 million from the Water Research Commission (WRC) to conduct research.

A two-day evidence-based workshop was conducted for the Provincial Department of Health for nursing college staff in July 2011.



Winter school: At the request of the Mpumalanga Department of Education, staff members from the School of Mathematical and Physical Sciences conducted winter school classes at schools in that province in 2011.

Law: In addition, three academics in the Faculty of Law were awarded competitive research projects by the Directorate of Research of the North West Provincial Government in 2010.

Over and above these commercially-driven projects, the NWU has also been involved in many community engagement activities, which are typically **not for profit**. These activities are performed by university staff and students to uplift, engage and develop the community.

They range from developmental engagement to community service projects and providing expertise on a voluntary basis to various bodies.

The NWU has identified community engagement as a strategic priority that can be instrumental in building the envisaged vibrant, dynamic and innovative character of the university.

PROJECTS

There are currently more than 150 community engagement projects running at the NWU. Here are a few examples:

Mosaic project: This orphan care project is aimed at building houses for families fostering orphans, and creating job opportunities for foster parents through an enterprise called "Made by Mosaic" and a building contracting business. The project further comprises social development programmes and a preschool for HIV-infected /affected children.

Enhancing the quality of life: The Africa Unit for Transdisciplinary Health Research (AUTHer) within the Faculty of Health Sciences on the Potchefstroom Campus runs various community projects aimed at enhancing the quality of life in communities. These projects include the Holding Hands project, Glass Recycling project and LIFEPLAN® which forms part of the Farm Labour and General Health (FLAGH) programme.

Health services: Various faculties and schools offer health-related services to the community.



These include monitoring 400 teachers in the Kenneth Kaunda Municipal District for cardiovascular disease, various projects at hospitals, a motor development programme aimed at pre-school children, the Phelophepa Health Care Train and Basic Health Programme, and the Happy Hearts Service Centre in Promosa near Potchefstroom.

Animal health: The Animal Health Centre on the Mafikeng Campus provides primary animal health care services to those who cannot afford veterinarian services.

Legal services to the community: The Community Law Centre in the Faculty of Law on the Mafikeng Campus and the Centre for Community Law and Development (CCLD) in the Faculty of Law on the Potchefstroom Campus provide practical legal training to final-year LLB students and candidate attorneys. They also provide free legal services, capacity building programmes and advisory services in the field of Law to communities in the North West Province.

Multilingualism: A variety of community initiatives underpin the spirit of the university's functional multilingualism policy.

Examples of the community engagement initiatives launched by the NWU's Language

Directorate include interpreting services in three schools as well as a trilingual reading project in five primary schools, in co-operation with the Faculty of Educational Sciences and co-funded by the Rotary Club of Orkney. Other initiatives include the short courses for translators and specialised translation (subtitling) presented by members of the Vaal Triangle Campus's School of Languages, and the course in Sesotho communication presented for non-mother tongue speakers.

SA Sign Language has also been introduced from 2011 as a language subject in the School of Languages on the Potchefstroom Campus. This is in addition to extensive training of Sign Language interpreters serving the Deaf community by means of joint Institutional Office and Deaf Federation SA short courses.

Arts: Developing arts in the North West Province is another priority of the NWU. In this respect, regular learnership programmes and certificate courses are offered by the Institute for Arts Management and Development (Artéma) on the Potchefstroom Campus.

BACK TO SCHOOL

Considering the backlogs at South African schools, especially in mathematics and science subjects, the NWU's engagement with schools around its campuses is a priority. The university is helping to prepare thousands of matriculants from feeder schools for the tertiary education environment and the world of work.

- **The Siyakhulisa Early Childhood Development Programme** endeavours to improve the standard of pre-school teaching and Early Childhood Development (ECD) in the Vaal Triangle area. A total of 70 pre-school teachers recently attended a six month training programme presented by the School of Education Sciences.

- **The Ikateleng Project** is aimed at preparing promising grade 12 learners for their matriculation examinations and the challenges of university life. This project is presented in the areas surrounding the three campuses.

In 2011, the average pass rate at the various centres was 93%, with a total of 177 distinctions obtained.

- **At the Winter School** on the Mafikeng Campus, staff and students offer supplementary teaching, helping grade 12 learners prepare for their final examination.
- **Improving the quality of teaching:**
 - The **Sediba** Project is aimed at improving the quality of teaching in Science and Mathematics, and assisting teachers in acquiring Higher Education Diplomas.
 - The **Education Quality Improvement Partnership Programme (EQUIP)** is a whole-school development programme, building capacity at leadership, management and governance level within schools. In collaboration with the North West Province's Department of Education, the NWU provides training and other support to school governing bodies, management teams and educators.
- The **Musikhane** music education project teaches children from disadvantaged communities to read music and play various instruments.

COMBATING HIV/Aids

Considering the huge impact that the HIV/Aids pandemic has on South Africa, the university views combating HIV/Aids as a priority.

- **Zero-Prevalence Study and Risk Assessment:** The Vaal Triangle Campus participated in this study as part of a programme focusing on HIV/Aids in the higher education sector. The study will provide an understanding of the disease within the sector.

- **Students combating HIV/Aids:** Students on all three campuses are actively involved in HIV/Aids awareness among communities. Their activities range from holding counselling workshops to arranging events such as anti-discrimination marches, candle weeks and condom weeks.

STUDENT INVOLVEMENT WITH COMMUNITIES

An important part of student life at the NWU is the opportunity to contribute to society through volunteerism.

- **Student Rag Community Service:** The money that this service raises during the annual Rag and other projects is distributed to community-based charities or to NWU academic staff involved in community projects.
- **Meals for needy students:** The campuses hold fund-raising events such as golf and jazz days and cycling events to ensure that needy students eat two balanced meals every day.
- **Children's homes:** Students do voluntary community service at local children's homes, shelters for the homeless, old age homes and the SPICA.

THIS IS A PLACE...
WHERE ANYTHING IS
POSSIBLE.



BEHIND ITS DOORS OUR **DESTINIES** LIE
IN ITS **PAGES** OUR NEW
LEGACIES ARE WRITTEN

YUNIBESITI YA RONA

Ka 1 Ferikgong 2004 Yunibesiti ya Bokone-Bophirima (YBB) e ne ya simolola semmuso go nna karolo ya leano le le atologileng la go fetola thuto e e kwa godimo, ka boikaelelo jwa go dirisa madi ka tshomarelo le go baakanya bothata jwa nako e e fetileng jwa go sa dirweng ga dilo ka go tshwana.

YBB ke setheo sa dikhamphase tse di farologaneng tse di dirang jaaka khamphase e le nngwe fela tse di leng mo diporofenseng tse pedi. Dikhamphase tseno ke khamphase ya Potchefstroom le ya Mafikeng kwa Bokone Bophirima le Khamphase ya Khutlotharo ya Lekwa kwa Gauteng. Ofisi ya Setheo (ofisi-kgolo) e kwa Potchefstroom gaufi thata le Khamphase ya Potchefstroom.

Mo dingwageng di le mmalwa tse di fetileng, YBB e ile ya akgolwa ke ditlamo tse di kwantle ka ntlha ya boeteledipele jwa yone mo ditirong tse di farologaneng. Mo tirong ya go tsamaisa kgwebo, Yunibesiti e ne ya itshupa e le setheo sa thutogodimo se se laolwang ka tsela e e molemogo di go gaisa tsotlhe mo Aforika Borwa ka go ikgapela Awate ya Botsamaisi jwa Kgwebo ya Thuto ya Maemo a a Kwa Godimo ya Price-waterhouseCoopers ya 2007, 2008, 2009, 2010 le 2011.

Ka tsela e e tshwanang, mo Kgaisanong ya Bosetshaba ya Mokgwa o Moša wa go Dira Dilo, YBB e ne ya di goga kwa pele ka go bidiwa Setheo sa Thutogodimo se se Gaisang tse Dingwe Tsotlhe ka Tlhamo-Seša ya Thekenoloji sa 2008.

YBB e ne ya newa kabelokhuno e nngwe gape e e kgethegileng go tswa kwa Pan South African Language Board (PanSALB), ka ntlha ya go bo e feditse dingwaga di le lesome e rotloetsa tiriso ya dipuo tse di farologaneng le go aga setshaba

ka 2008. Ka 2010, Yunibesiti e ne ya ikgapela awate e nngwe gape ya PanSALB, mme mo nakong eno, e ne le ya go tolola le go ranola.

Leinatshwao la kgwebo la Yunibesiti ya Bokone-Bophirima le na le dikarolo tse pedi, e leng letshwao la kerafo kgotsa letshwaoina – “dikeetane” tse di gokaganang le lefshwao-foko, leina la setheo – Yunibesiti ya Bokone-Bophirima.

“Dikeetane” tse tharo tse di gokaganang di tshwantshetsa kutlwano ya Yunibesiti ya Bokone-Bophirima mme mebala e meraro e tshwantshetsa dipharologano tsa methalethale tsa dikhamphase tse tharo.

Kwa Yunibesiting ya Bokone-Bophirima, go kopana ga ditalente tse di tlhomologileng, bokgoni le ditshwanelego tsa baithuti le badiri ba rona ba ditso tse di farologaneng go dira gore gantsi re nne le dikgopolo tse diša tsa go dira dilo.

Moano wa rona, mokgwa o moša wa go dira dilo ka dipharologano, o gatelela ntlha eno.

E bontsha maikemisetso a Yunibesiti a go rata le go amogela ditso tse di farologaneng le go dirisa dipharologano tseno go gagamalela kitso le mekgwa e meša ya go dira dilo, go letla baithuti le badiri ba rona go nna se ba batlang go nna sone le go godisa moya wa rona wa mekgwa e meša ya go dira dilo.

Ka 2010, Yunibesiti e ne ya ikgapela awate e nngwe ya PanSALB, mme mo nakong eno, e ne le ya go tolola le go ranola.

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