

WOMEN IN ENGINEERING

The aim of the Women in Engineering programme is to increase the number of female engineers who are available for industry to employ, to bring about gender equality in the workplace, and to provide fresh perspectives on the problems faced in industry.

The objectives: to improve access to engineering studies for high school girls and to inspire existing female engineering students to successfully complete and further their studies.

We work towards this aim in the following projects:

- Femengineering is a unique weekend course and exposure event presenting the different faces of engineering.
- Modiragatsi: an innovation and problem solving competition aimed at high school girls, furnishing them with valuable skills.



FACT NOT FICTION!

Prof Attie Jonker, an academic staff member from the Faculty of Engineering, together with the chief design engineer of the Jonker Sailplanes Company, took to the skies during the 35th World Gliding Championships. The duo finished in a top 10 position.



SOLAR CAR NEWS

The NWU's solar car team and Centre for Advanced Manufacturing (CFAM) Technologies were both recently finalists for innovation awards during the annual National Science and Technology Forum Awards. This awards ceremony is known as the "Science Oscars" and is held in very high regard.

As far as solar cars and technology go, the NWU's Phoenix was the second South African solar car to complete the Sasol Solar Challenge. The car covered a distance of 2 276,3 km.



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ON GOOD AUTHORITY

A message from the Executive Dean, Prof Liezl van Dyk,

At the Faculty of Engineering we want to change the world for the better and develop exceptional engineers by creating an industry-relevant environment, based on cutting-edge research and academic excellence.

We are deeply vested in the progress of our students and we choose our students with great attention and care. We want our graduates to have a solid academic foundation as well as practical applications experience within the world of work.

Therefore, ground-breaking research and the commercialisation of our expertise – both locally and abroad – have always been top priorities for us.

If you sign up for a qualification within the field of engineering, be prepared to grow, thrive and succeed.

APPLICATION REQUIREMENTS

- Full matriculation exemption, with an APS score of at least 3 I
- Mathematics level 6 or higher (70% +)
- Physical Sciences level 5 or higher (60% +)
- Language level 5 or higher (60% +) – in the language of instruction on either the Home or First Additional Language level
- For prospective engineers who do not quite meet the minimum requirements an optional engineering test may provide the necessary entrance

How do I apply?

Please refer to our website for online application.

Money matters

The Bursary Office assists in the distribution of advertisements for various bursaries in the field of engineering. For more information contact Claudie Kroese at 018 288 1530 (claudie.kroese@nwu.ac.za) or Angie Danster at 018 299 1985 (angie.danster@nwu.ac.za). For additional financial support, please contact 018 299 2672.



Faculty of
ENGINEERING



WE DO NOT RUN FROM CHALLENGES – WE RUN TOWARDS SOLUTIONS!

The NWU Faculty of Engineering functions as a dynamic training hub for world-class, versatile and innovative engineers.

We focus on equipping engineers and researchers for integrated energy as well as Industry 4.0 solutions. We are the BRICS University Networks partner on energy.

INTERNATIONALLY KNOWN

The BEng programmes of the faculty are formulated to meet not only the set requirements of the Engineering Council of South Africa (ECSA), but also to equate internationally by means of the Washington Accord. Member countries that ascribe to the Washington Accord include Australia, Canada, Chinese Taipei, Hong Kong China, India, Ireland, Japan, Republic of Korea, Malaysia, Russian, New Zealand, Singapore, South Africa, Sri Lanka, Turkey, the United Kingdom, and the United States of America.

THE NUMBERS SPEAK FOR THEMSELVES



Male:
1 448



Female:
356



Master's degrees:
260



Doctorates:
98



African students:
268



International students:
75



Academic staff:
82



NRF-rated researchers:
17



Total students in faculty:
1 804



■ Undergrad: 1 438
■ Postgrad: 366

THE FACULTY CONSISTS OF FOUR SCHOOLS WITH EIGHT UNDERGRADUATE PROGRAMMES:

Chemical and Minerals Engineering

- BEng degree in Chemical Engineering
- BEng degree in Chemical Engineering with Minerals Processing

Electrical, Electronic and Computer Engineering

- BEng degree in Electrical and Electronic Engineering
- BEng degree in Computer and Electronic Engineering
- BEng degree in Electromechanical Engineering
- BEng degree in Mechatronics Engineering (Brand new as from 2020)

Mechanical Engineering

- BEng degree in Mechanical Engineering
- BEng degree in Electromechanical Engineering

Industrial Engineering

- BEng degree in Industrial Engineering

RESEARCH CHAIRS

- DST/NRF Chair in Coal Research (SARChi)
- DST/NRF Chair in Biofuels and Other Clean Alternative Fuels (SARChi)
- DST/NRF Chair in Nuclear Engineering (SARChi)
- ESKOM EPPEI Specialisation Centre for Emission Control

RESEARCH ENTITIES

- Centre of Excellence in Carbon-based Fuels
- Unit for Energy and Technology Systems
- Multilingual Speech Technologies (MuST)

HOSTED ENTITIES, PLATFORMS AND INSTITUTES

- DST HySA Infrastructure Centre of Competence in hydrogen production, storage, reticulation and safety codes and standards
- DTI Centre for Advanced Manufacturing

We want to hear from you



Phone: 018 285 2453



Email: sonette.becker@nwu.ac.za
(prospective students)



Email: welmarie.steenkamp@nwu.ac.za
(faculty administrator)

Web: <http://engineering.nwu.ac.za>

CUTTING-EDGE RESEARCH WITH MASTER OF ENGINEERING (MENG)

- Chemical Engineering
- Computer and Electronic Engineering
- Electrical and Electronic Engineering
- Industrial Engineering
- Mechanical Engineering
- Nuclear Engineering
- Development and Management Engineering

Master of Science in Engineering Sciences (MSc): (fully research-based)

- Chemical Engineering
- Computer and Electronic Engineering
- Mechanical Engineering
- Nuclear Engineering

Philosophiae Doctor in (PhD):

- Chemical Engineering
- Computer Engineering
- Computer and Electronic Engineering
- Electronic Engineering
- Electrical Engineering
- Electrical and Electronic Engineering
- Mechanical Engineering
- Nuclear Engineering
- Industrial Engineering

Postgraduate diplomas in Engineering:

- Postgraduate Diploma in Nuclear Science and Technology

Short courses and training centre:

- Siemens training centre
- Various short courses on integrated energy solutions