

FACULTY OF ENGINEERING STELLENBOSCH UNIVERSITY

*Presentation to Parents and Guardians of First-Year
Engineering Students*

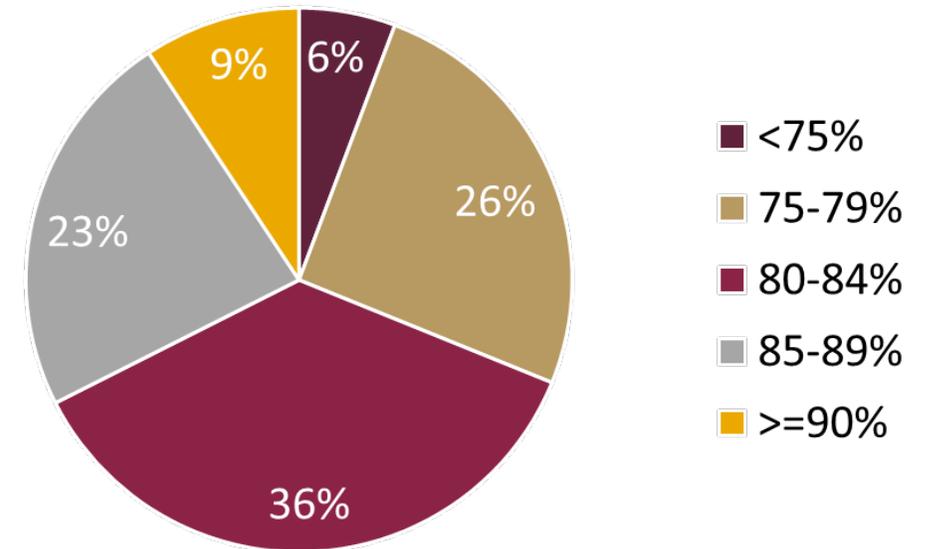
Prof Wikus van Niekerk: Dean of Engineering

28 January 2026

CONGRATULATIONS

- Your students' Matric results were excellent
- Your student is one of a select group
 - In excess of 26 000 applications received for about 950 places
 - 64% of our first-year students had Matric average $\geq 80\%$

Matric Averages 2025 cohort



TODAY'S TALK

- Background about the Faculty
- Undergraduate programmes
- Advice
- Important information
- Questions from the audience

TODAY'S TALK

- We want our students to do well
 - To graduate as many competent engineers as possible
- We know you want the same for your student!
- We are going to tell you what we are going to tell them during the Dean's Lectures so that you:
 - can join us in supporting them
 - will also know what we expect of them

DEAN OF ENGINEERING

- Prof Wikus van Niekerk
 - General management of the Faculty
 - “Guardian” for the 1st year students
- The Dean’s office regularly meets all 1st years
 - Weekly, during the first semester: “Dean’s Lecture”
 - Part of the Intercultural Communication module
 - Advice on effective study methods
 - Having a balanced life as an engineering student
 - Offers advice and refer to further help at the University



ADDITIONAL SUPPORT STAFF

- Ms Natalie White
(natalies@sun.ac.za)
- Mr August Engelbrecht
(august@sun.ac.za)
- Two educational psychologists (part time)
 - Ms Inez Saunders and Ms Annette du Plessis
 - Arrange appointments through Ms Natalie White



BACKGROUND ABOUT THE FACULTY



VISION STATEMENT

To be the **leading Engineering Faculty** on the African continent, recognised globally for excellence, innovation and inclusivity in education, research and societal impact.



HISTORY

- Established in 1944
- Faculty is 82 years old this year
- First Afrikaans **Engineering** Faculty in South Africa, now multilingual
- Track record for producing excellent engineering graduates
- Outstanding research record in cooperation with industry

ORGANOGRAM



Dean of Engineering
Prof JL (Wikus) van Niekerk
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Vice-Dean (Teaching)
Prof Celeste Viljoen
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celesteviljoen@sun.ac.za



Faculty Director
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Vice-Dean (Research)
Prof Corne Schutte
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Student Support
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Student Recruitment
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Faculty Administrator
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Industrial Engineering
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Electrical & Electronic Engineering
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ee@sun.ac.za

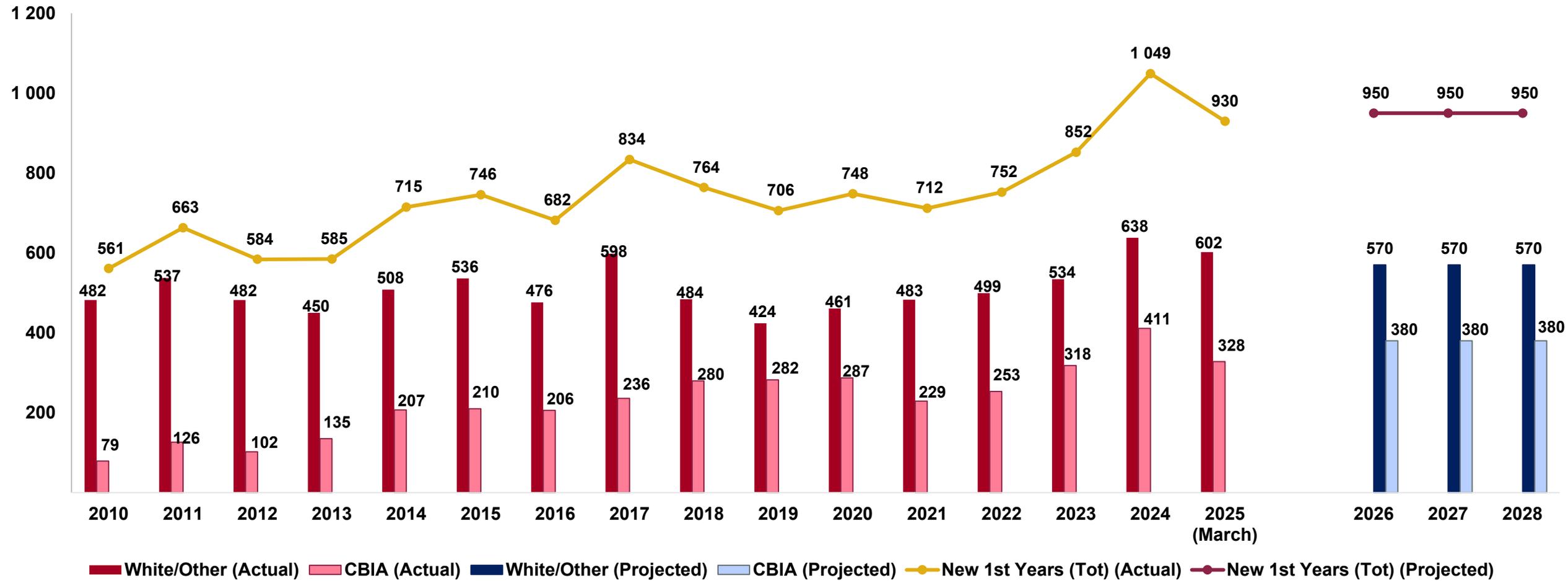


Mechanical & Mechatronic Engineering
Prof Johan van der Spuy
(021) 808 3742
mmchair@sun.ac.za

ENGINEERING FACULTY STATISTICS

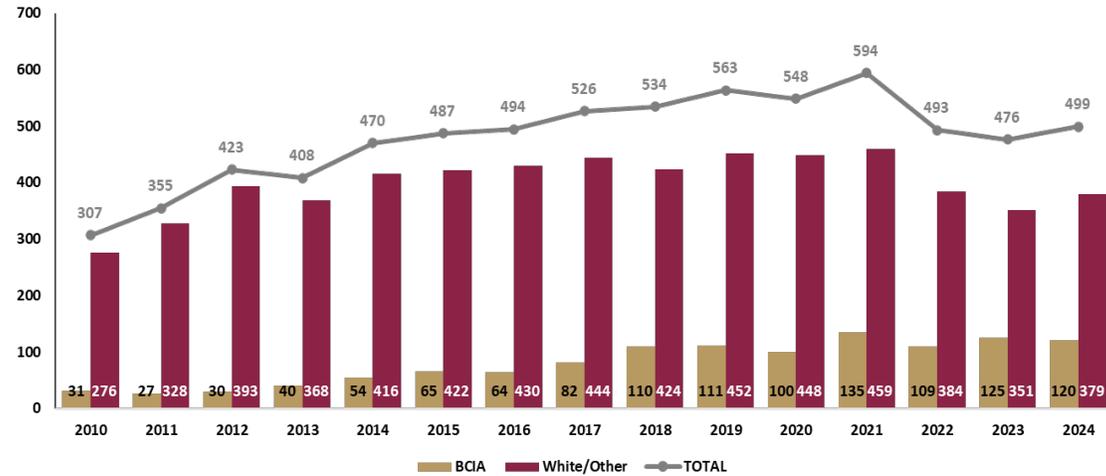
- **Some numbers (2025)**
 - 3 507 undergraduate students
 - 1 646 postgraduate students
 - 2024 Graduates: 499 BEng, 280 Master's and 68 PhD's (Dec 2024 & March 2025)
- **Typical intake of about 950 first-years**
 - UG success rate of 75% (graduate after 4-6 years)
 - South Africa average 44%
 - About half of BEng 1st years graduates in 4 years

ENGINEERING FACULTY STATISTICS

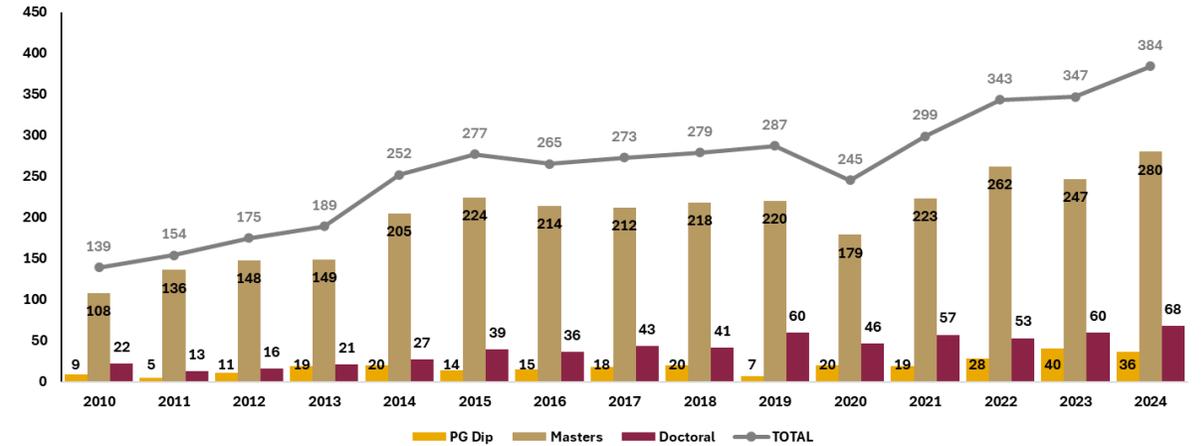


ENGINEERING FACULTY STATISTICS

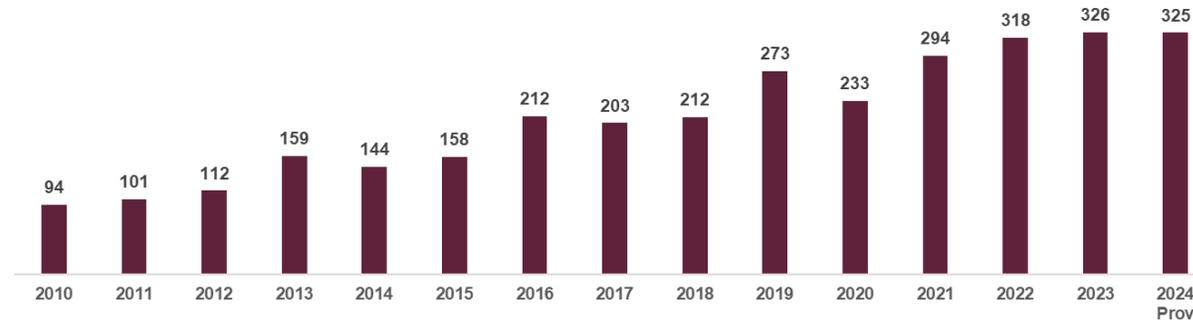
BEng Degrees



Postgraduate Qualifications



Faculty of Engineering Publication Units Delivered



UNDERGRADUATE PROGRAMMES



ACCREDITATION: ALL OUR BEng PROGRAMMES

- Engineering Council of South Africa (ECSA)
 - Registration as a Professional Engineer
- Washington Accord
 - Meet educational requirements in USA, Canada, Ireland, UK, Australia, Hong Kong, Japan, Korea, New Zealand, Russia, Malaysia, Singapore, Turkey, etc.



DATA SCIENCE

- All BEng programmes introducing data science elements
- BEng Electrical and Electronic with focus area *Data Engineering* introduced in 2020
 - ECSA accredited
 - *As part of the BEng E&E with a focus on Data Engineering*
 - Not a common 1st year
 - Substantial statistics and computer science content
- PGDip and MEng (Struct) in Data Science

COMMON 1ST YEAR FOR ALL BENG

Except Data Engineering

1ST SEMESTER

1. **Engineering Maths 115**
2. **Applied Maths B124**
3. Eng Chemistry 123
4. Eng Drawings 123 or **Probability Theory and Statistics 114**
5. Eng Physics 113
6. Intercultural Communication 113

2ND SEMESTER

1. **Engineering Maths 145**
2. **Applied Maths B154**
3. Comp programming 143
4. Electrotechnique 143
5. Strength of Materials 143 or **Data Science 141**
6. **Programme-specific module**

EXTENDED CURRICULUM PROGRAMME (ECP)

- Bridging year followed by normal 4-year BEng programme
- Modules
 - **Mathematics 186**
 - **Chemistry 176**
 - Physics 176
 - **Computer Skills 176**
 - Scientific Communication Skills 116, 146
 - **Preparatory Technical Drawings 146**
 - University Practice in the Natural Sciences 176
- Required to proceed after 1st year
 - **Pass all modules**
 - **Average mark above 65%**

1ST YEARS' SUPPORT

- **Built into the normal programme**
 - Lectures, tutorials and online material
 - Access to lecturers by appointment
- **Extra academic support**
 - Group learning sessions (*After hours, facilitated by trained teaching assistants*)
 - Video recordings of key topics
- **Guidance & mentoring**
 - Dean's lectures
- **Student wellbeing support**
 - Access to an educational psychologist
 - Support with anxiety, stress management and effective study methods

LANGUAGE POLICY

- **1st year: Parallel Medium**
 - Separate Afrikaans and English classes in all subjects, except for electives in second semester
- **2nd year**
 - Parallel medium: Large modules with multiple class groups
 - Other: Lectures in English, with support in Afrikaans
- **3rd year**
 - Lectures in English, with support in Afrikaans
- **4th year**
 - Lectures in English
- **General**
 - Textbooks all in English
 - **Tests/exams questions in English and Afrikaans**
 - 4th year Afrikaans on request
 - **Answers in English or Afrikaans**

COMPUTERS

- **Computers, Devices & IT Access**
 - Students do not need their own PC or laptop
 - 24-hour access to Faculty computer labs (FIRGA) with licensed, legal software
 - First-year students only require a **basic pocket calculator** (*school-level or Faculty-approved standard calculator*)
- **For convenience**
 - A personal computer or tablet at residence is helpful for accessing online learning material
 - Devices must be **used responsibly**
- **IT access**
 - Students must **register with IT Services** to gain access to the Stellenbosch University network

TEXTBOOKS

- **Textbooks**

- Order your own textbooks, from:

- Van Schaik Bookstores

- Various online bookstores

- Information is available on www.su.ac.za/en/faculties/engineering

- **Drawing instruments**

- Buy at Unistat in the Neelsie

- Or second-hand from senior students or continue to use the kit that you've used at school

SOME ADVICE



YOUR FEARS AS PARENTS/GUARDIANS

Common Concerns

- Engineering is demanding
- University education is costly

Parents and students often ask:

- Will my student succeed academically?
- Can they maintain a healthy balance between work and leisure?
- Will they adapt to large classes, a fast pace, and a significantly higher workload?

Our Shared Goal

- A world-class engineering qualification

This requires:

- Commitment and hard work
- Discipline – institutional rules are applied consistently
- Maturity and personal responsibility

Priority:

Obtaining the **BEng degree** must be the primary focus during studies at Stellenbosch University

SUCCESS FACTORS

- Aim to be a GOOD engineer
 - Learn to solve **new** technically **demanding** problems while under considerable pressure
- Learn that by DOING as many problems as possible yourself
 - Careful of only working through examples and old papers
 - Some group learning, learn from your peers
- **Aim to do well (at least 60%)**
 - Not only to pass assessments and modules by scraping through with 50%

SUCCESS FACTORS

- **Use the resources**
 - Class attendance, pre- and review material
 - Take practicals and tutorials very seriously
 - Study the material before coming to class
 - Do many problems; red circle questions
 - Ask questions in class
 - Talk to your lecturers & tutors
 - Form study groups, “Study Buddies”
- **Keep up**
 - There will not be time to catch up

WHAT DO WE EXPECT?

- 15 credit module \Rightarrow 150 hours of work in total over a semester
- Time budget per lecturing week
 - 32 hr in contact sessions
 - 16 hr after hours
- Test week assessment (A1) per 15 credit module
 - 12 hr preparation
 - 2 hr writing
- Exam assessment (A2) per 15 credit module
 - 18 hr preparation
 - 3 hr writing

WHAT DO WE EXPECT?

- That students should ...
 - Work 5 evenings per week, 3 hours per evening
 - Start studying at 19:30
 - On weekend: also 3-4 hours preparation for Monday (*That adds up to 50 hours per week!*)
 - Keep up with the work
 - Do not waste time during the day
 - Relax - daily between 17:00 and 19:30
 - Maintain lifestyle (social, exercise, spiritual...)
- Weekends, public holidays, vacations:
 - Take time off - if up to date
 - Otherwise: weekends = catch up time!

SECRET:
Time management for a
healthy balance



THE REWARD ...

- A reputable degree qualification that is recognised widely, in SA and abroad
- The ability to solve technical problems
- The ability to make a success of a wide variety of jobs, also to create one's own job or start a new company

EARLY SIGNS OF PROBLEMS

- **BEng in more than 4 years?**
 - First-year average 50-55%
 - Often passes modules with 50%
 - Write A3 (supplementary assessments)
 - More than 20% down from school marks
 - Downward trend in second semester and second year
 - Anxiety and depression
 - Reluctant to ask questions and not working in small groups
 - Not talking about academic problems
 - Don't seek help in time, sooner is much better than later

EARLY SIGNS OF PROBLEMS

- **Emotional problems/depression**
 - Negative emotions
 - Irritable or always tired
 - Cannot sleep and difficult to concentrate
 - Change in appetite or weight
 - Depression
- **Seek help at**
 - Faculty's educational psychologists
 - contact Ms Natalie White natalies@sun.ac.za
 - Centre for Student Counselling and Development (CSCD/SSVO)



RECIPE FOR FAILURE

- High School approach to their Engineering studies
 - Chasing marks, not understanding
 - Learning mainly by studying examples
 - Working out old exam papers
 - Poor study approach
 - Tutors!!
- Poor self-discipline and time management
- Engineering not what you want to do
- Only wants a BEng degree, not developing yourself to be a good engineer

RECIPE FOR FAILURE

- **Wrong priorities**
 - Excessive participation in residence activities
 - Excessive sports commitments, especially provincial and national
 - Excessive ... (e.g., Capela singing competition)
 - Computer games & TV series, social media, etc.
 - Wrong friends who study too little
 - Too much pocket money
- **Relational problems**
 - Relationship problems (room-mate, boyfriend, girlfriend)
 - Stress about problems at home
 - Excessive family commitments
- **Alcohol abuse**

RECIPE FOR FAILURE

- Working unwisely
 - Insufficient sleep
 - Inefficient use of time
 - Not using lectures or face-to-face opportunities
 - Not using other support offered
 - Cramming before test/exam
 - On Social Media while “studying”

OTHERWISE...

- Unsatisfactory progress → not allowed to continue because no reasonable chance of graduating BEng
 - After 1st year:
 - At least **75 credits** of the 1st year's credits passed
 - At least **2** of the four mathematics modules passed
 - Every year thereafter:
 - At least **75 credits** passed in the preceding year
 - And at least **70% of the accumulated credits** to date, e.g. 210 credits after two years
- Must earn degree within 6 years
 - Only one chance for a GOOD study record
 - Shouldn't come to university to play!

PARENTS'/FAMILY'S CONTRIBUTION

- **You can contribute**
 - Maintain contact with your student
 - Encourage your student
 - Ensure that you know how he/she is progressing
 - Encourage him/her to aim high
- **We will try to keep you informed**
 - POPI Act limits what we can share with parents and guardians

RESOLVING CLASS/PERSONAL PROBLEMS

- If a class has a problem:
 - **Class representative** speaks to the lecturer(s) or Dean
 - Speak to the Engineering Student Council (ESC)
 - Once per semester class reps meet Dean and lecturers
- If *your student* has a problem: Let **him/her**
 - Speak to the lecturer
 - Speak to Ms Natalie White
 - Make an appointment to see the Dean
 - Visit the educational psychologist or Centre for Student Counselling and Development (CSCD)
 - **Take responsibility** to solve problems before asking parents to help
- **Do not wait** until the problem becomes a crisis

IMPORTANT INFORMATION

www.su.ac.za/en/faculties/engineering/current-students/2026-first-year-engineering-students

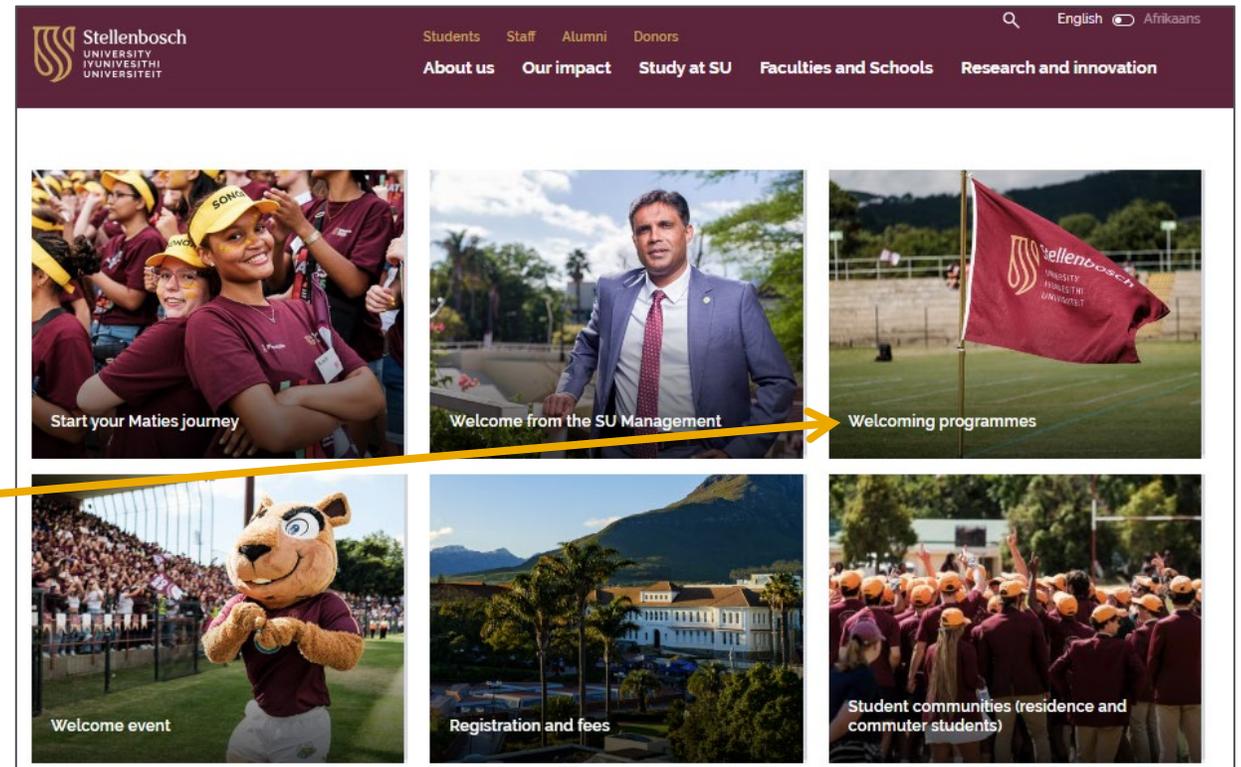
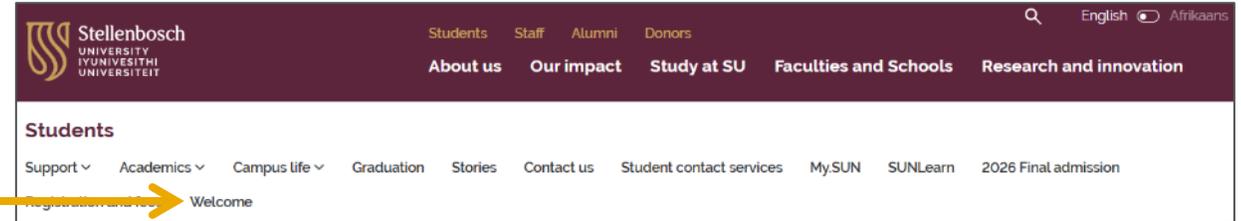
This page brings together all the essential information to help newcomer first-year students navigate their first year.

The screenshot shows the Faculty of Engineering website page for 2026 First-Year Engineering Students. The page features a navigation menu with links for About us, News, Prospective Students, Current Students, Departments & Centers, Research, Staff, and Contact. The breadcrumb trail indicates the path: Home / Faculties / Engineering / Current Students / 2026 First-Year Engineering Students. The main heading is "2026 First-Year Engineering Students" with the motto "Forward together. Saam vorentoe." Below this, a welcome message states: "We're thrilled you've joined the Faculty of Engineering. This page has all the essential information to guide you through your first-year experience." The page contains several key information blocks: "Engineering Welcoming Programme", "Newsletter for First-Year Engineering Students", "SU Welcoming Programme", "Textbooks", "Laptop guide", "Assessment Rules", "Guide to Timetable (tbc)", and "Funding Opportunities". On the right side, there is a photograph of students walking outside a building, and three additional presentation blocks: "ECP Presentation (tbc)", "Presentation to Parents (tbc)", and "Presentation to Students (tbc)".

WELCOMING PROGRAMME

Visit the Maties Welcoming page
<https://www.su.ac.za/en/students>

For general Welcoming Programme information, please visit the mainstream Welcoming page, while Faculty-specific Welcoming details are available here.



SAFETY

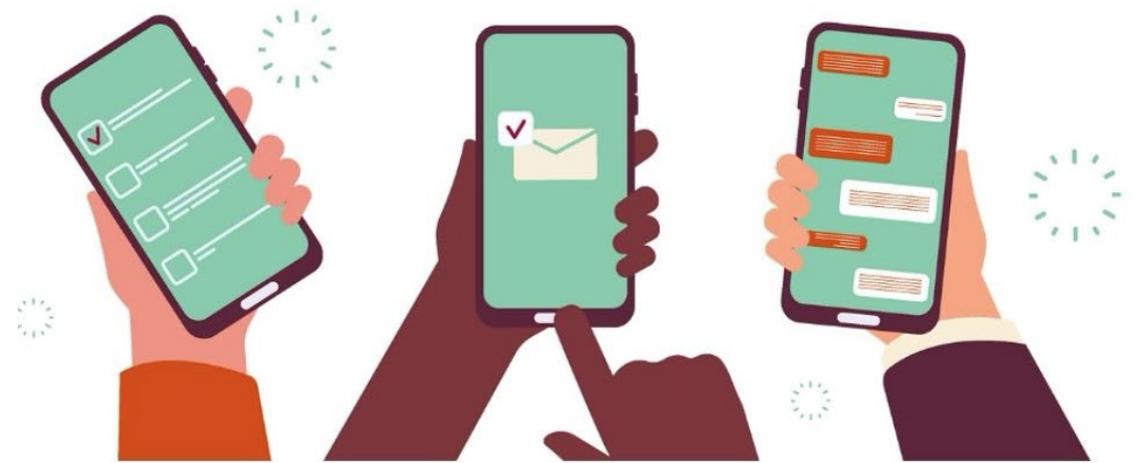
Stellenbosch probably not more dangerous than any other town in South Africa, but ...

- Please take reasonable safety precautions
 - Major risk:
 - Pub crawls and then vulnerable to crime on the way home
- Don't walk around alone late at night
 - Especially not in isolated spots!
 - Form and move in groups
 - Call Campus Security

CAMPUS SECURITY

- Emergency number:
021 808 2333
- Toll free number:
0800 02 58 27
- WhatsApp:
082 808 2333
- Enquiries / Reporting /
Pedestrian service:
021 808 4666

Report safety concerns



Report safety concerns to Campus Security
24-hour emergency numbers

Stellenbosch campus
0800 02 58 27 (toll-free)
021 808 2333

Tygerberg campus
0800 00 67 67 (toll-free)
021 931 5111

IN CONCLUSION - Student Support and Enquiries

If you need help or advice,
contact the Dean's Office

Tel: 021 808 4204

Email: engdean@sun.ac.za

For an appointment with the Educational
Psychologist, contact:

Ms Natalie White

Tel: 021 808 3614

Email: natalies@sun.ac.za

Presentation Copy

To request a copy of this presentation, please email: natalies@sun.ac.za

May our students all be successful.



Stellenbosch
UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

Thank you
Enkosi
Dankie