BEng in Chemical Engineering 4-year programme

A chemical engineer, also known as a **process engineer**, finds ways to convert cheap raw materials into more valuable products. Theoretical knowledge of chemistry is required, but the field mostly focuses on the application of intense mathematics to make processes as efficient as possible.

The programme provides students with the necessary foundation to ensure that once they have graduated, they will be able to make creative contributions to the world's ever-increasing needs by:

- converting natural resources into efficient and useable forms of energy;
- developing more durable, lighter and renewable materials;
- designing more efficient, environmentally friendly processing plants;
- applying biotechnology to convert raw materials into products in a sustainable way;
- designing processes to ensure that limited natural resources, such as water, can be reused; and
- leaving a clean and sustainable environment behind for future generations.

A solid foundation in chemistry, physics, mathematics and biology is combined with the principles of the conservation of mass, energy and momentum, followed by the application of the economic tenets when designing equipment so as to ensure lucrative processes that will contribute to economic and industrial growth.

The programme is aimed at producing graduates who can develop new and innovative processes, ensuring continued growth to satisfy the abovementioned needs.

For more information, please consult the Faculty webpage.

Career Opportunities

Chemical engineers are involved in industrial processes that convert raw materials into products with a higher economic value. This is achieved using physical, thermal, chemical, biochemical and mechanical changes and processes. Chemical engineers apply their specialised knowledge in the petroleum,

food, minerals processing, power generation and the paper and pulp industries, water and effluent treatment, and environmental engineering activities, including air pollution control. Like those in other engineering disciplines, chemical engineers are involved in research and development, techno-economic evaluation, equipment and plant design, process control and optimisation, construction, commissioning, operation and management, and the marketing and distribution of the final products.

Programme Code

12130012

Closing Dates

- **SA** – 30/06/2025
- **Non-SA** – 30/06/2025

Admission Requirements

Important information for all prospective students for 2026

The admission requirements below apply to all who apply for admission to the University of Pretoria with a **National Senior Certificate (NSC) and Independent Examination Board (IEB) qualifications. Click here for this Faculty Brochure.**

Minimum requirements: 4-year programme

Achievement level			
English Home Language or English First Additional Language	**Mathematics**	**Physical Sciences**	**APS**
NSC/IEB	NSC/IEB	NSC/IEB	
5	6	6	**35**

The suggested second-choice programmes for the Bachelor of Engineering in Chemical Engineering are Bachelor of Science in Chemistry, Bachelor of Science in Mathematics and Bachelor of Science in Physics.

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Minimum requirements: 5-year programme [previously called ENGAGE]

Achievement level			
English Home Language or English First Additional Language	**Mathematics**	**Physical Sciences**	**APS**
NSC/IEB 5	NSC/IEB 65%	NSC/IEB 65%	**33**

Students may apply directly to be considered for the 5-year Bachelor of Engineering programme.

Life Orientation is excluded when calculating the APS.

Applicants currently in Grade 12 must apply with their final Grade 11 (or equivalent) results.

Applicants who have completed Grade 12 must apply with their final NSC or equivalent qualification results.

Please note that meeting the minimum academic requirements does not guarantee admission.

Successful candidates will be notified once admitted or conditionally admitted.

Unsuccessful candidates will be notified after 30 June.

Applicants should check their application status regularly on the UP Student Portal at click here.

Applicants with qualifications other than the abovementioned should refer to the International undergraduate prospectus 2026: Applicants with a school leaving certificate not issued by Umalusi (South Africa), available at click here.

International students: Click here.

Transferring students

A transferring student is a student who, at the time of applying at the University of Pretoria (UP) is/was a registered student at another tertiary institution. A transferring student will be considered for admission based on NSC or equivalent qualification and previous academic performance. Students who have been dismissed from other institutions due to poor academic performance will not be considered for admission to UP.

Closing dates: Same as above.

Returning students

A returning student is a student who, at the time of application for a degree programme is/was a registered student at UP, and wants to transfer to another degree at UP. A returning student will be considered for admission based on NSC or equivalent qualification and previous academic performance.

Note:

- Students who have been excluded/dismissed from a faculty due to poor academic performance may be considered for admission to another programme at UP, as per faculty-specific requirements.
- Only ONE transfer between UP faculties and TWO transfers within a faculty will be allowed.
- Admission of returning students will always depend on the faculty concerned and the availability of space in the programmes for which they apply.

Closing date for applications from returning students

Unless capacity allows for an extension of the closing date, applications from returning students must be submitted before the end of August via your UP Student Centre.

Minimum duration of study

4 years, full-time

Faculty Notes

All modules will only be presented in English, which is the University's official language of tuition, communication and correspondence.

The Faculty of Engineering, Built Environment and Information Technology at the University of Pretoria is a leading source of graduates in the engineering, built environment and information technology professions. We achieve this by a focus on research to drive innovative and enquiry-led teaching for educating and positioning our students to be leaders in their professions. The Faculty has extensive and cutting-edge teaching, learning and laboratory facilities integrated with the excellent suite of facilities and services offered by the University. We facilitate access to our qualifications through our extended ,programmes but expect our students to excel and develop as future professionals through our programme offering. We invite you to consider enrolling in one of our programmes if you share our

vision of excellence and want to position yourself as a leader in the professions that we support.

The Faculty is organised in four schools: the School of Engineering, the School for the Built Environment, the School of Information Technology and the Graduate School of Technology Management. The School of Engineering is the largest of its kind in the country in terms of student numbers, graduates and research contributions and offers programmes in all the major engineering disciplines with many specialisations also offered at undergraduate and graduate level.

The University of Pretoria aims to be internationally competitive while also locally relevant. Advisory boards at both faculty and departmental level promote alignment and excellence in our teaching and research activities. Where applicable and available our programmes are accredited by statutory and professional bodies at both national and international level.

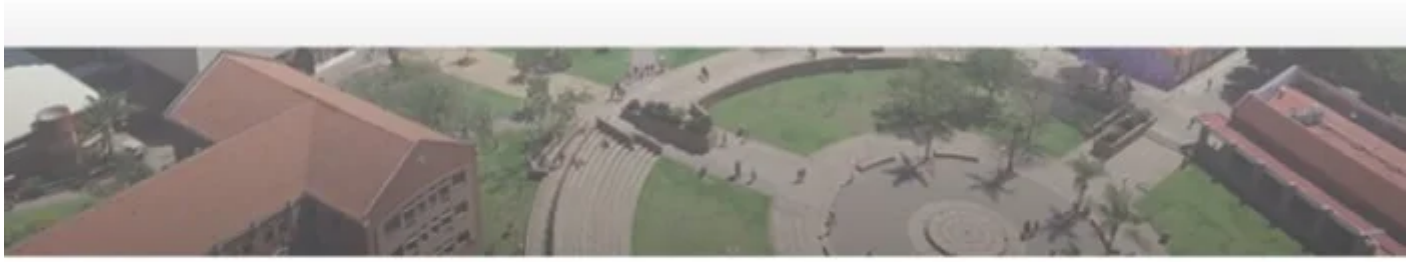
- ***Disclaimer:*** *This publication contains information about regulations and programmes of the University of Pretoria. Amendments to or updating of the information may be effected from time to time without prior notification. The accuracy, correctness or validity of the information contained here is therefore not guaranteed by the University at any given time and is always subject to verification. The user is kindly requested to verify the correctness of the information with the University at all times. Failure to do so will not give rise to any claim or action of any nature against the University by any party whatsoever.*

Enquiries about the programme

Click Here

How to apply

Online Application



Note: Also consult General Rules and Information on the Yearbook website for additional information.

Disclaimer: Due to the continuous restructuring of the Faculty and this website, some of the information displayed here may not fully reflect the most recent developments in the Faculty. Any discrepancies that are experienced may be taken up with Student Administration of the Faculty.