

# **BEng (Industrial Engineering) 4-year programme**

- [University of Pretoria](#)
- [Study at UP](#)
- BEng (Industrial Engineering) 4-year programme

Industrial engineers are generally responsible for the analysis, design, planning, implementation, operation, managing and maintaining of integrated systems. These systems consist of people, capital, materials, equipment, information and energy, and they aim to increase the productivity of organisations and to create wealth.

Graduates are employed in any of the service sectors, manufacturing, information technology, the finance sector, agriculture, government, logistics companies, consulting firms, education institutions, etc.. Typical activities of an industrial engineer are:

- Designing, implementing and managing production processes and equipment
- Designing and improving plant layout
- Designing and improving business processes
- Functional design and implementation of information systems
- Developing and implementing performance criteria and standards
- Providing support with decision-making
- Scheduling activities
- Analysing systems with the aid of mathematical and simulation models
- Undertaking economic evaluations of alternatives
- Integrating new systems in an existing environment

The demand for industrial engineers currently exceeds the supply, and young graduates are virtually assured of employment.

For more information, please consult the Faculty webpage.

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## **Career Opportunities**

Industrial engineers design, test, implement and manage a wide range of man/machine systems for

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production and the delivery of services. Organisational matters that require optimisation include site selection and layout of facilities, manufacturing, inventory control, materials handling, supply chain management, quality management, cost control, financial services, maintenance, reliability, computer simulation, information systems, human resources and business law.

## Programme Code

12130001

## Closing Dates

- **SA** - 04/03/2024
- **Non-SA** - 04/03/2024

## Admission Requirements

### Important information for all prospective students for 2024

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

NSC/IEB

5

##### Mathematics

NSC/IEB

6

##### Physical Sciences

NSC/IEB

6

**APS**

**35**

The suggested second-choice programmes for BEng (Industrial Engineering) are BSc (Chemistry), BSc (Mathematics) and BSc (Physics) if your APS and subject requirements of your first-choice programme are not obtained.

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**Minimum requirements: ENGAGE 5-year programme**

**Achievement level**

**English Home**

**Language or**

**English First**

**Additional**

**Language**

NSC/IEB

5

**Mathematics**

NSC/IEB

65%

**Physical Sciences**

NSC/IEB

65%

**APS**

**33**

Students may apply directly to be considered for the ENGAGE 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 Brochure: Undergraduate Programme Information 2024: Qualifications other than the NSC and IEB, 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.

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## Minimum duration of study

4 years, full-time

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## 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.

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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.*

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## 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.