UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

Make today matter

Bachelor of Engineering

Five-year programme for all Engineering disciplines

What does the programme entail?

An engineering degree is very demanding. The workload is high, the pace is fast and the modules are academically challenging. Many students also face challenges regarding background knowledge in mathematics and physical sciences, academic literacy and information technology. They may not have the study skills to cope with the mainstream four-year programme.

Furthermore, many students – even some of those who attended high-performing schools – struggle with the transition to university life due to the very large first-year classes, freedom from strict discipline and many social activities.

For this reason, the School of Engineering offers a five-year programme which is available in all the engineering disciplines. It provides a carefully structured curriculum that helps students adjust to university life and cope with the academic demands of engineering studies.

In the five-year programme, the volume of work is gradually increased while the support provided is decreased over a period of three years. However, the workload – the time students must spend on their studies – is high from the very beginning. Therefore this programme is not for students who do not want to work!

What makes this programme unique?

Parallel support is offered through additional modules in the first and second years of the five-year Bachelor of Engineering programme.

Who are the ideal candidates?

Students may apply for the Bachelor of Engineering [five-year programme] if:

- their marks in the National Senior Certificate meet the minimum admission requirements for the five-year programme; or
- their marks in the National Senior Certificate meet the minimum admission requirements for the four-year programme, but they would like more support.

Structure of the programme

In the five-year Bachelor of Engineering programme, students take the same first-year modules and attend the same classes as the four-year degree programme students, but the modules are spread out over two years.

In addition, for every 16-credit 100-level (first-year) module, students also take an 8-credit augmented additional module. For example, in the first year, students take the same mathematics modules (16 credits) as the four-year degree programme students, as well as some additional mathematics modules (8 credits).

In the additional modules, students are divided into groups of approximately 50 members to work on strengthening their problem-solving and other cognitive skills, developing conceptual understanding and acquiring the background knowledge needed for both the additional module and the corresponding four-year module.

In the first year of study, students take the basic sciences modules that form the foundation of engineering, namely chemistry, physics and mathematics. However, computer engineering students take mechanics instead of chemistry. Students in the five-year Bachelor of Engineering programme also take Professional Orientation, which provides an introduction to information technology skills and practice, and develops their academic and communication skills. Furthermore, first-year engineering students are required to take a module in humanities and social sciences – the HAS module.

In the second year, students take all the introductory (100-level) engineering modules, as well as a compulsory additional module for each. They also take one 200-level mathematics module per semester. In the third year, they take the remaining 200-level modules, but since they have already completed two 200-level mathematics modules, their workload is slightly lighter than that of the four-year degree programme students.

For the last two years of their studies, students in the five-year Bachelor of Engineering programme follow exactly the same programme as the four-year degree programme students. All the prescribed components of the five-year programme are compulsory, as is attendance of all lectures and discussion classes in the modules.

Minimum admission requirements

Programme	Minimum requirements for NSC/IEB for 2026			
	Achievement level			APS
SCHOOL OF ENGINEERING	English Home Language or English First Additional Language	Mathematics	Physical Sciences	
Bachelor of Engineering [5 years] This is a five-year programme for all Engineering disciplines. *Previously called ENGAGE*	5	65%	65%	33
For advice on a second-choice programme, please consult a Student Advisor. To make an appointment, send an email to carol.bosch@up.ac.za.				

Note: The admission requirements above are relevant to prospective students who will commence their studies in 2026.
Admission to the five-year programme in the School of Engineering will be determined by the NSC results.

Contact information Prof Eric Njoroge (Programme Coordinator: Five-year Programme) | **Tel** +27 (0)12 420 2668 | **Email** eric.njoroge@up.ac.za
Websites www.up.ac.za/academic/engage | www.up.ac.za/school-of-engineering | www.up.ac.za/ebit-postgraduate

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Minimum requirements for applicants with a school leaving certificate not issued by Umalusi (South Africa)

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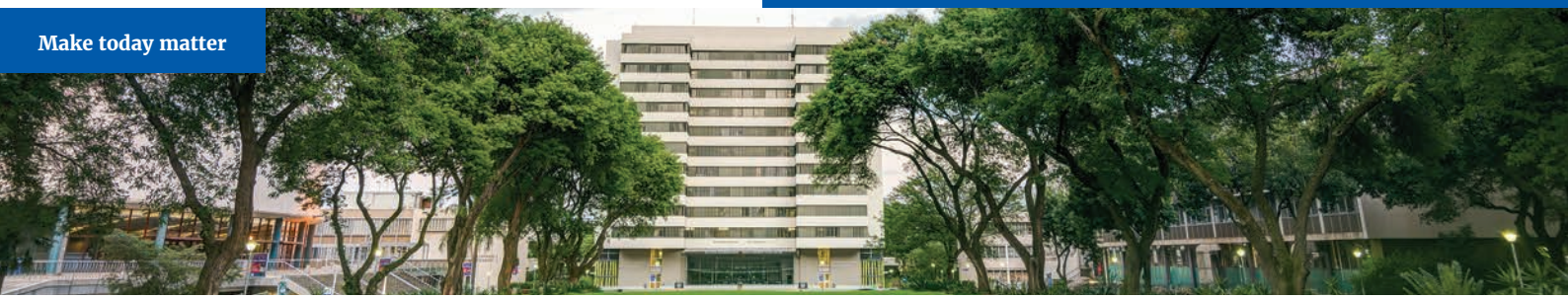

Refer to the International undergraduate prospectus at www.up.ac.za/programmes > Undergraduate > Admission Information or click here for more information.

- The closing date for applications for programmes in this faculty is 30 June.
- Meeting the minimum admission requirements does not guarantee admission into a programme.

FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY Programmes	Minimum requirements for 2026 Achievement level									
		GCSE #			AS Level	A Level	IB			
		The qualifications in the two columns below will be considered only for conditional admission. If final AS and/or A levels have been completed, these two columns will not apply. It can also not be used for final admission and/or registration.								
	Compulsory subjects	CIE IGCSE LGCSE BGCSE EGCSE O Level NSSC OL CGCE UCE NECO WAEC WASSCE ZGCE	UK England Wales Northern Ireland Pearson Edexcel GCSE	HIGCSE NSSC HL	GCE CIE NSSC AS	GCE CIE CGCE UACE WAEC ZGCE	IB SL	IB HL	KOMBI ABITUR	KCSE
Bachelor of Science in Architecture	English Mathematics Physics	C D D	4 3 3	3 3 3	C D D	E E E	4 2 2	3 2 2	60-69% 50-59% 50-59%	B C+ C+
Bachelor of Town and Regional Planning	English Mathematics	C D	4 3	3 3	C D	E E	4 2	3 2	60-69% 50-59%	B C+
Bachelor of Science in Construction Management	English Mathematics Physics Chemistry (or Accounting*)	C C D D	4 4 3 3	3 3 3 3	C C D D	E E E E	4 4 2 2	3 3 2 2	60-69% 60-69% 50-59% 50-59%	B B C+ C+
Bachelor of Science in Real Estate										
Bachelor of Science in Quantity Surveying										
Bachelor of Engineering in Industrial Engineering	English Mathematics Physics Chemistry	C B B B	4 5 5 5	3 2 2 2	C B B B	E D D D	4 5 5 5	3 4 4 4	60-69% 70-79% 70-79% 70-79%	B B+ B+ B+
Bachelor of Engineering in Chemical Engineering										
Bachelor of Engineering in Civil Engineering										
Bachelor of Engineering in Electrical Engineering										
Bachelor of Engineering in Electronic Engineering										
Bachelor of Engineering in Mechanical Engineering										
Bachelor of Engineering in Metallurgical Engineering										
Bachelor of Engineering in Mining Engineering										
Bachelor of Engineering in Computer Engineering										

Only English with at least a C symbol on this level can be used for final admission.
* Offer both PHYSICS and CHEMISTRY, or ACCOUNTING only

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FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY Programmes	Minimum requirements for 2026									
	Achievement level									
		GCSE #			AS Level	A Level	IB			
		The qualifications in the two columns below will be considered only for conditional admission. If final AS and/or A levels have been completed, these two columns will not apply. It can also not be used for final admission and/or registration.								
	Compulsory subjects	CIE IGCSE LGCSE BGCSE EGCSE O Level NSSC OL CGCE UCE NECO WAEC WASSCE ZGCE	UK England Wales Northern Ireland Pearson Edexcel GCSE	HIGCSE NSSC HL	GCE CIE NSSC AS	GCE CIE CGCE UACE WAEC ZGCE	IB SL	IB HL	KOMBI ABITUR	KCSE
Bachelor of Information Technology in Information Systems	English Mathematics	C C	4 4	3 3	C C	E E	4 4	3 3	60-69% 60-69%	B B
Bachelor of Information Science	English	D	3	3	D	E	3	2	50-59%	C+
Bachelor of Information Science specialising in Publishing	English	C	4	3	C	E	4	3	60-69%	B
Bachelor of Information Science specialising in Multimedia**	English Mathematics	D C	3 4	3 3	D C	E E	3 4	2 3	50-59% 60-69%	C+ B
Bachelor of Science in Computer Science	English Mathematics	C B	4 5	3 2	C B	E D	4 5	3 4	60-69% 70-79%	B B+
Bachelor of Science in Information Technology in Information and Knowledge Systems	English Mathematics	D B	3 5	3 2	D B	E D	3 5	3 4	50-59% 70-79%	C+ B+
Bachelor of Engineering This is a 5-year programme in all Engineering disciplines. *Previously called ENGAGE*	English Mathematics Physics Chemistry	C C C C	4 4 4 4	3 3 3 3	C C C C	E E E E	4 4 4 4	3 3 3 3	60-69% 65% 65% 65%	B B B B

Only English with at least a C symbol on this level can be used for final admission.
* Offer both PHYSICS and CHEMISTRY, or ACCOUNTING only
**Possible name change to: Bachelor of Information Science specialising in Interactive Technology