BSc in Environmental and Engineering Geology

The degree offers further specialisation in engineering geology and hydrogeology. Engineering geology is the study of the behaviour of ground (soil and rock) and how likely it is to affect engineering works. It comprises geotechnical studies and relates to construction (eg founding or excavation) on and with geological materials (eg construction materials), and to the influences of geological, geomorphological and hydrological processes on construction and development. Hydrogeology refers to the occurrence, distribution and movement of water below the Earth's surface. The study of groundwater is generally both quantitative (eg water supply, safe abstraction and the influences of pumping) and qualitative (eg contamination, remediation and drinking water).

Very few universities offer professional qualifications in engineering geology and hydrogeology. UP offers both, which places it in a strong position on the interface between infrastructure development and subsurface water. The qualification complies with the requirements for professional registration.

The programme requires a strong understanding of mathematics and mechanics. Genuine concern for Planet Earth, a desire to work outdoors and an interest in geology or geomorphology will be an advantage. Depending on your personality, you can choose how you would like to divide your time between doing fieldwork and working on a computer.

Engineering geologists work closely with civil engineers, mining engineers, town planners and environmental scientists. Your work will require you to identify geological hazards, source building materials and supply foundation solutions.

As a hydrogeologist you will be involved in the supply of water for urban, agricultural and industrial use. Nowadays many graduates work in contaminant transport and remediation, which involves identifying sources of pollution and finding suitable remediation solutions.

For more information, please consult the Faculty webpage.

Career Opportunities

Engineering and environmental geologists study the interaction between human activities and the geological environment, such as the pollution of soil and groundwater. They investigate geological structures and soil and rock properties at construction sites, for example, dams, tunnels and mines, to provide valuable information before construction. They also locate and evaluate suitable construction materials. The task of the hydrogeologist is to search for groundwater and monitor the responsible exploitation of that water.

Programme Code

02133043

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

Achievement level			
English Home Language or English First Additional Language	**Mathematics**	**Physical Sciences**	**APS**
NSC/IEB 5	NSC/IEB 5	NSC/IEB 5	**34**

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

3 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 Natural and Agricultural Sciences is home to more than 6 500 undergraduate and postgraduate students. The Faculty presents degrees in fields ranging from the proverbial A to Z – from actuaries to zoologists, and consists of 13 departments.

All degree programmes are designed to develop problem-solving individuals who can easily adapt to changing circumstances and take the lead in their chosen fields of specialisation. The qualifications awarded are of world-class and provide access to a multitude of career opportunities for dynamic and creative people. According to the latest Times Higher Education World University Rankings the University has achieved new world rankings in Physical Sciences, a discipline which features strongly in NAS and also maintains excellent positions on the ISI Web of Science (WOS) field rankings in Plant and Animal Sciences, Agricultural Sciences, and Environment and Ecology Sciences.

In the Faculty of Natural and Agricultural Sciences, we strive to continuously improve our high impact research and significantly address the national shortage of PhD graduates that respond to global and local challenges.

- ***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*

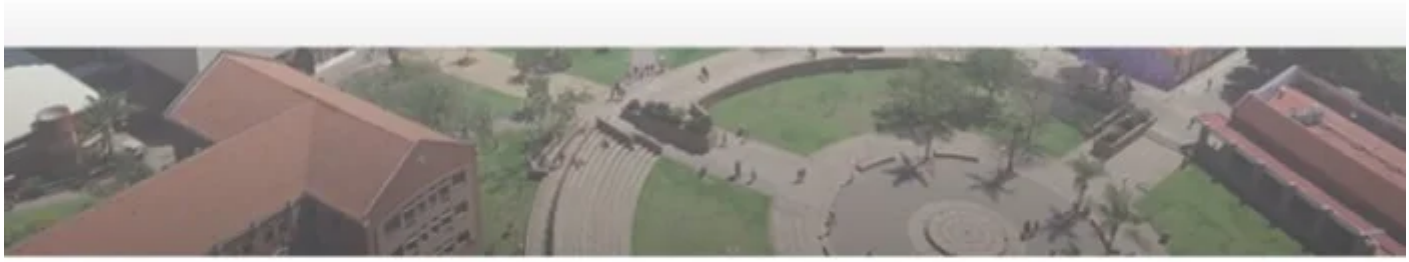
times. Failure to do so will not give rise to any claim or action of any nature against the University by any party whatsoever.

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.