

# BSc Applied Mathematics

- [University of Pretoria](#)
- [Study at UP](#)
- BSc Applied Mathematics

Mathematics, which originated from arithmetic and geometry, is about pattern and structure and is the language of science and technology. Applied mathematics is concerned with the modelling and treatment of real-life problems in a variety of fields, such as engineering, finance, statistics, physics and biology. The power of mathematics and applied mathematics lies in their abstract, analytical and computational nature. Nowadays, mathematics is essential for all technological, financial and managerial industries that form the backbone of the South African economy.

The Department of Mathematics and Applied Mathematics is not only one of the largest departments on the Hatfield Campus, but also one of the largest mathematics departments in the country, with approximately 19 500 student enrolments for mathematics modules. The Department prides itself on excelling in both teaching and research, as well as in community-based activities.

The diverse and competent staff complement has expertise in various fields. Researchers regularly travel abroad to attend conferences and to pay research visits. The Department has 29 researchers who have received NRF ratings in fields ranging from the more traditional abstract analysis to contemporary epidemiology, where the modelling of biological phenomena leads to exciting options. The Department regularly hosts international visitors.

A degree in mathematics trains students to apply, evaluate and adapt existing problem-solving techniques, or to develop new mathematical models and techniques to solve problems stemming from natural, technological and financial phenomena.

For more information, please consult the Faculty webpage.

- **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.*

## Career Opportunities

Graduates in mathematics and applied mathematics are employed by research institutions, educational bodies (universities and schools), the public sector (government and medical institutions) and the private sector (engineering companies, financial institutions and the computer industry). These graduates' training in abstract, analytical and computational thinking provides them with the background to easily adjust to changing circumstances in the professional environment and to construct mathematical models of natural, technological and financial phenomena. Mathematicians and applied mathematicians apply, evaluate and adapt existing problem-solving techniques or develop new techniques to solve problems.

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## Programme Code

02133253

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## Closing Dates

- **SA** - 30/11/2020
  - **Non-SA** - 31/08/2020
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## Admission Requirements

- The closing date is an administrative admission guideline for non-selection programmes. Once a non-selection programme is full and has reached the institutional targets, then that programme will be closed for further admissions, irrespective of the closing date. However, if the institutional targets have not been met by the closing date, then that programme will remain open for admissions until the institutional targets are met.
  - The following persons will be considered for admission: candidates who are in possession of a certificate that is deemed by the University to be equivalent to the required National Senior Certificate with university endorsement, candidates who are graduates from another tertiary institution or have been granted the status of a graduate of such an institution, and candidates who are graduates of another faculty at the University of Pretoria.
  - Life Orientation is excluded from the calculation of the Admission Point Score (APS).
  - Grade 11 results are used for the conditional admission of prospective students. Final admission is based on Grade 12 results.
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- Please note that the Faculty does not accept GED and School of Tomorrow qualifications for entry into our programmes.

### **Transferring students**

#### **Candidates previously registered at UP or at another university**

The faculty's Admissions Committee considers applications of candidates who have already completed the final NSC or equivalent qualification examination and/or were previously registered at UP or another university, on grounds of their final NSC or equivalent qualification results as well as academic merit.

#### **Candidates previously registered at a FET college or a university of technology**

The faculty's Admissions Committee considers the application of these candidates on the grounds of their final NSC or equivalent qualification results as well as academic merit.

### **Qualifications from countries other than South Africa**

- Citizens from countries other than South Africa and South African citizens with foreign qualifications must comply with all the other admission requirements and the prerequisites for subjects/modules.
- In addition to meeting the admission requirements, admission is based on the performance in the **TOEFL, IELTS or SAT**, if required.
- Candidates must have completed the National Senior Certificate with admission to degree studies or a certificate of conditional exemption on the basis of a candidate's foreign qualifications, the so-called "Immigrant" or "Foreign Conditional Exemption". The only condition for the "Foreign Conditional Exemption" that is accepted is: 'completion of the degree course'. The exemption certificate is obtainable from Universities South Africa (USAf). Detailed information is available on the website at [click here](#).

**University of Pretoria website:** [click here](#)

#### **Minimum requirements**

##### **Achievement level**

##### **English Home Language**

##### **or English First**

##### **Additional Language**

NSC/IEB

AS Level

5

C

##### **Mathematics**

NSC/IEB

AS Level

6

B

##### **APS**

**34**

\* Cambridge A level candidates who obtained at least a D in the required subjects, will be considered for admission.

\* International Baccalaureate (IB) HL candidates who obtained at least a 4 in the required subjects, will be considered for admission.

Candidates who do not comply with the minimum admission requirements for BSc (Applied Mathematics), may be considered for admission to the BSc – Extended programme – Mathematical Sciences. This programme takes a year longer than the normal programmes to complete.

### **BSc - Extended programme - Mathematical Sciences**

#### **Minimum requirements**

##### **Achievement level**

##### **English Home Language**

##### **or English First**

##### **Additional Language**

NSC/IEB

AS Level

4

D

##### **Mathematics**

NSC/IEB

5

AS Level

C

##### **APS**

**28**

#### **Duration of study**

3 years, full-time.

#### **Faculty Notes**

The Faculty of Natural and Agricultural Sciences is a diverse faculty with 13 departments that is supported by more than 20 centres and institutes. More than 5 000 students register in this faculty annually of which 70% are undergraduate and 30% postgraduate students.

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.

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.

#### **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.