

2020

Undergraduate
programme
information

www.up.ac.za



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



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The University of Pretoria (UP) is a diverse and dynamic university community comprising students from all over the world.

It has nine faculties (Education; Humanities; Economic and Management Sciences; Engineering, Built Environment and Information Technology; Law; Natural and Agricultural Sciences; Theology and Religion; Veterinary Science and Health Sciences) and the Gordon Institute of Business Science (GIBS).

The University of Pretoria's degrees are internationally recognised and are structured similarly to those of the world's best universities. A number of support departments at the University help ensure that all staff and student activities, spread over six campuses, are executed with the necessary quality, relevance, diversity and sustainability.

University of Pretoria contact information

Location	Postal address	Student Service Centre	
University of Pretoria cnr Lynnwood Road and Roper Street Hatfield South Africa	University of Pretoria Private Bag X20 Hatfield 0028 South Africa	Tel	+27 (0)12 420 3111
		Email	ssc@up.ac.za
		Website	www.up.ac.za

University of Pretoria banking details

University bank accounts	Application fee for study	
Account holder	University of Pretoria	University of Pretoria
Bank	ABSA	Standard Bank
Branch	Hatfield (Branch code: 632005)	Hatfield (Branch code: 011545)
Swift code	ABSAZAJJCPT	SBZAJJ
Account number	2140 000 038	012 602 604
Deposit reference	Initials and surname	Initials and surname

1. Become a proud UP student

Minimum admission requirements

To be able to register, National Senior Certificate (NSC)/IEB*/Cambridge candidates must comply with the minimum requirements for degree studies, as well as with the minimum requirements for the relevant programme. The calculation of an Admission Point Score (APS) is based on a candidate's achievement in any SIX recognised NSC 20-credit subjects by using the NSC seven-point rating scale. Life Orientation is a 10-credit subject and may not be used for calculating the APS. Life Orientation is also not a faculty-specific subject requirement.

*Independent Examination Board (IEB)

National Senior Certificate (NSC) seven-point rating scale

Achievement level	Description	Percentage
7	Outstanding achievement	80–100%
6	Meritorious achievement	70–79%
5	Substantial achievement	60–69%
4	Adequate achievement	50–59%
3	Moderate achievement	40–49%
2	Elementary achievement	30–39%
1	Not achieved	0–29%

Non-South African citizens

Before non-South African citizens are allowed to register, they need to submit proof of their legal status in South Africa, as well as proof of adequate medical aid cover. Documents required must be emailed to isd@up.ac.za. Students must clearly state their student number on each page.

Universities South Africa (USAF)

A full or foreign conditional exemption certificate is a prerequisite and applicable to non-South African citizens and to students who do not have a South African National Senior Certificate (NSC) qualification or Independent Examination Board (IEB) qualification and who want to enrol for undergraduate studies at the University of Pretoria. This certificate can only be obtained from Universities South Africa.

Contact information

Tel +27 (0)10 591 4401/2
 Fax +27 (0)86 677 7744 (SA Only)
 +27 (0)12 481 2992 (International Only)
 Email exemptions@usaf.ac.za
 Website <http://he-enrol.ac.za> or <https://mb.usaf.ac.za>

Location 1st floor
 Block D and E
 Hatfield Office Park
 1267 Pretorius Street
 Hatfield 0028
 Pretoria

Postal address PO Box 27392
 Sunnyside
 Pretoria 0132

Special package offer to new first-year academic achievers

(Award values are for 2019 and will be adjusted for 2020)

ADMISSION (based on the examination results with which you apply)		RESIDENCE PLACEMENT (based on the examination results with which you apply)		ACHIEVEMENT AWARDS (based on the final school-year examination results)			
Qualifying academic average percentage	Admission to study	Qualifying academic average percentage	Residence placement	Qualifying academic average percentage	FACULTIES		
					Natural and Agricultural Sciences AND Engineering, Built Environment and Information Technology	Health Sciences AND Veterinary Science	Other faculties
75%-100%	Guaranteed admission to your first- or second-choice non-selection programme (not applicable to selection programmes) if your application is received no later than 1 May of the year preceding commencement of studies.	85%-100%	Guaranteed placement in a UP residence if your application is received no later than 1 May of the year preceding commencement of studies and once you are conditionally admitted to a programme.	75%-79.99%	R6 500	-	-
				80%-84.99%	R16 000	R6 500	R16 000
				85%-89.99%	R25 000	R16 000	R25 000
				90%-100%	R40 000	R25 000	R40 000
DUX LEARNER AWARD							
Dux learner award to the value of R7 500 to the top academic achiever in Grade 12 of a specific school (one learner per school)							

PLEASE NOTE: The University of Pretoria reserves the right to amend award values without prior notice.

Conditions

- Undergraduate achievement awards are based on the average percentage obtained (not on the number of distinctions).
- The average percentage is not rounded off.
- Undergraduate achievement awards are made automatically to newly-registered undergraduate students who meet the award conditions. Students do not apply for these awards.
- First-year students who register for studies at UP directly after Grade 12 (their final school-year), or who took a gap year(s) after their final school-year, who meet the award conditions, will be considered.
- Students who have previously registered at a tertiary educational institution prior to registering at UP, will not be considered for an achievement award. Students who registered at UP in previous years, are also not considered.

- Qualifying students must be South African citizens or permanent residents in South Africa, or be citizens of a SADC country.
- The average percentage for award purposes is the average of the actual percentages obtained for all recognised NSC/IEB/Cambridge subjects taken, in their final school-year end examination, based on the calculations done by the University of Pretoria.
- Certain subjects are excluded in the calculation of average percentages:
 - Life Orientation
 - Additional Mathematics/Alpha Mathematics
 - Practical Music Grade 4 and 5 (Note: Practical Music Grades 6, 7 and 8 are considered for inclusion in the calculation of the average percentage. If your music report is not part of your NSC report, please submit your official music report to your faculty's student administration office before end January for consideration).

- The awards are finalised on the basis of the final marks that the University receives from the Department of Basic Education for the final school-year. Results obtained for papers that have been re-marked are not taken into account for award purposes.
- Awards are fully repayable if students discontinue or terminate their studies in the relevant programme for whatever reason during the year in which the award is made.
- If students change their programmes during the year in which the award is made, the award value allocated or awarded will not be cancelled or adjusted upward/downward to align it with the consecutive programmes enrolled for.

Be sure to read about all the various funding opportunities on www.up.ac.za/fees-and-funding.

2. Online application process for studies in 2020

Please read through all the steps below to determine which actions are relevant for your application to study at the University of Pretoria in 2020. Non-South African citizens should also take note of the steps below with specific reference to the important information on page 2.

1

Choose a programme

Read about all undergraduate programmes offered at UP from page 5 in this brochure.

- It is important to indicate a first- as well as a second-choice programme on your Online Application. The Application only makes provision for two study choices. If you want to add a third choice, or if you want to change your study choice after you have already submitted your online application, please forward your request to ssc@up.ac.za.
- Your second-choice programme will automatically be considered should your application for your first-choice programme be unsuccessful or if your first choice is a selection programme.
- Ensure that your first- and second-choice programmes meet the minimum admission requirements as well as the faculty's selection guidelines.
- Please note that certain programmes will not be considered if indicated as your second choice. Refer to the faculty tables from page 5.
- For study advice, make an appointment with a Student Advisor via Ms Carol Bosch at +27 (0)12 420 5144 or carol.bosch@up.ac.za.

More information is available at www.up.ac.za > Study at UP

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Tuition and residence fees

For more information on tuition and residence fees, go to www.up.ac.za/fees-and-funding.

- Fee quotation:** Please go to <http://www.up.ac.za/en/fees-and-funding/article/2582340/quotations> to get an estimation of the study fees for the programme/s that you are interested in.
- Family discount:** When two or more dependent children of the same family are registered simultaneously at the University of Pretoria, they may apply for a rebate on tuition fees.
- The 2.5% discount:** If the student account is paid in full (ie 100%) by 30 April, a 2.5% discount is applicable.
- Initial payment:** This payment is not an additional amount payable, but the first payment towards the tuition fees.
- Residence reservation fee:** This fee will be payable within 30 days after placement in a UP residence. For residence room fees, go to www.up.ac.za/accommodation.
- Fees paid by bursaries:** Students must submit written proof from the sponsor of the bursary awarded to them prior to registration, otherwise they are responsible for the initial payment. The final decision regarding the acceptance of a bursary letter rests with the University.
- How and where to pay:** Cashiers are available on all our campuses from Mondays to Fridays from 08:00 to 16:00. For EFT and credit card payments, please allow at least 5 working days for payment to reflect on your student account.
- UP banking details:** See page 1.

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Apply to study at UP

Apply ONLINE at www.up.ac.za/apply from 1 March in the year preceding studies.

- Before you start to complete the Online Application, please watch a video on "How to complete the online Application" at <https://www.youtube.com/watch?v=me3-j04FK7o&feature=youtu.be>.
- Ensure that the email address that you indicate on your Online Application is correct as your temporary password and T number will be sent to this email address.
- Ensure that you apply before the closing dates of both your first- and second-choice programmes. The closing dates are indicated in the faculty tables; see page 5 in this brochure or go to www.up.ac.za/closingdates.
- You will receive your student number within 10 working days after you have submitted your Online Application.
- On receipt of your student number, you will be able to track your application status on the UP Student Portal. Refer to Step 7 for instructions on how to gain access to your Student Portal.

4

Apply for residence placement

The Online Application has a section to be completed if you are interested in residence placement.

- Residence placement is based on academic merit and date of application.
- The demand for accommodation by far exceeds the available spaces – apply as soon as possible from 1 March.
- Preference is given to students with an academic average of 75% and above.
- To qualify for guaranteed placement in a UP residence, the prospective student must:
 - apply before 1 May in the year preceding studies;
 - have obtained a minimum average of 85% in the examination with which the student applies to study at UP; and
 - be conditionally admitted to a programme.

More information is available at www.up.ac.za/accommodation.

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Apply for bursaries and loans

Visit the relevant website for closing dates.

UP bursaries and loans

- Applications must be submitted via the UP Student Portal or www.up.ac.za/fees-and-funding. No late applications will be accepted.
- UP sports bursaries: www.up.ac.za/sport

National Student Financial Aid Scheme (NSFAS)

- For applications and comprehensive information, visit www.nsfas.org.za.

Fundi (previously known as Eduloan)

As a registered credit provider, Fundi covers a wide range of student-related necessities such as books, accessories, laptops, university and private accommodation, as well as study tuition with a fixed monthly instalment. Anyone can apply for a loan (students, parents or guardians), provided that the applicant is in full-time employment or has a registered business. For more information, visit www.fundi.co.za.

Other bursary options

- Bursaries according to field of study: www.gostudy.mobi
- The Bursary Register: Contact rlevin@mweb.co.za or +27 (0)11 672 6559

2. Online application process for studies in 2020

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National Benchmark Test (NBT)

The National Benchmark Test is not compulsory for all programmes.

- Register to write the NBT at www.nbt.ac.za.
- The NBT results support, but do not replace or duplicate final school examination results.
- It is indicated at the programmes in the faculty tables from page 5 whether or not the NBT is required.
- The tests are confidential.
- There are no previous test papers available.
- The NBT consists of two components:
 - (1) AQL: Academic Literacy and Quantitative Literacy (which are combined). Quantitative Literacy is similar to Mathematical Literacy. The AQL test has also been translated into Braille.
 - (2) MAT: Mathematics.
- A complete schedule with all the test centres can be found at www.nbt.ac.za.

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How to access the UP Student Portal

Go to www.up.ac.za and click on My UP Login.

NOTE: A T number is a temporary number and NOT a student number. This T number is issued to the applicant at the beginning of the Online Application process. An applicant will receive a UP student number within 10 working days after his/her application has been submitted successfully.

Applicants will only be able to access the UP Student Portal once they have received a UP student number, eg u18123456.

Click on the "New user" link below the Login tab.

- Type in your Username (u followed by your student number) and your National ID or Passport number. Click the "Proceed" button.
- Set up your new password and confirm the password in the second block. Click the "Proceed" button.

- A message is displayed to inform the user that the password was set successfully. Click the "OK" button.
- A list of challenge questions appears and you may select to answer any 3 of these.
- Select any three-challenge questions and then click on the "Submit" button.
- Enter your answer on each challenge question. Click the "Save" button.
- A message will be displayed to inform you that your challenge questions have been set up. Click the "OK" button.
- You are now ready to access the UP Student Portal.
- Sign in again with your username and password.

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Faculty of Health Sciences Value-added Questionnaire Faculty of Veterinary Science Value-added Form

- These documents will be made available on the UP Student Portal, only for prospective students in the above-mentioned faculties who meet the minimum admission requirements. Visit your Student Portal regularly for notices in this regard.

- Be sure to complete and submit the relevant document before the due date. The faculty will communicate the due date to applicants on the UP Student Portal under "Communications".

Enquiries may be directed to ssc@up.ac.za.

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UP Student Contract

Before a student will be able to register, a contract needs to be concluded between the student and the University of Pretoria.

- Students must access the contract online on the UP Student Portal at www.up.ac.za > My UP Login.
- The contract should be completed online, and then printed and signed.
- The completed and signed original contract must be handed in at the Student Service Centre or posted to the Student Service Centre, University of Pretoria, Private Bag X20, Hatfield, 0028. The University of Pretoria does not accept faxed, scanned or emailed contracts.
- Watch a video on "How to complete the UP Student Contract" at <https://youtu.be/OOaHDREGcRg>

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Orientation for new first-year students

- The Orientation Programme will be available on www.up.ac.za/ orientation by the end of December 2019.
- The dates for online registration of first-year students will be communicated to students by the end of December 2019.

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Special package offer to academic achievers

The special package offer to new first-year students is based on the academic average percentage obtained in the final school-year end examination. (See page 2 for further information).

- The special package offer includes:
 - Guaranteed achievement awards to students who qualify.
 - Guaranteed admission to first- or second-choice non-selection programmes for prospective students with an academic average percentage of between 75% and 100%, if the application is received no later than 1 May of the year preceding commencement of studies.
 - Guaranteed placement in a UP residence to prospective students with an academic average percentage of between 85% and 100% if:
 - your application is received no later than 1 May of the year preceding commencement of studies; and
 - you have been conditionally admitted to a programme.

More information is available at www.up.ac.za/fees-and-funding.

3. Undergraduate programmes

In the faculty tables on the following pages, suggested second-choice programmes are indicated in a line directly below the programme it pertains to, where such a second-choice programme/s may be applicable.

- The Online Application makes provision for two study choices.
- The demand for admission into programmes at the University of Pretoria by far exceeds the availability of study spaces. It is therefore sensible to add a second-choice programme on the Online Application.
- Prospective students' preferred programme should be indicated as their first study choice.
- Applicants whose applications for their first study choice are unsuccessful, will automatically be considered for admission into their second study choice programme.

- For suggested second-choice programmes that may provide a chance for reconsideration for the applicant's first study choice during the first year of study, refer to the faculty tables.
- The second choices are merely suggestions and must not be seen as compulsory second choices.
- Remember that admission to your second-choice programme does not guarantee later admission to your first choice of programme.

Closing dates are indicated by means of a red footer number that is beside the name of the programme, unless indicated at the specific programme. Refer to the dates at the bottom of each page.

Faculty of Health Sciences

Important information on undergraduate programmes for 2020

- Admission to Health Sciences programmes is subject to a selection process.
- Grade 11 final examination results, the National Benchmark Test (NBT) results as well as a Value-added Questionnaire will be used for the provisional selection of prospective students.
- For selection purposes the sum of the results in six subjects, including English, Mathematics and Physical Science, is calculated.
- The applications of international candidates who come from countries that have medical schools will not be considered for placement in the MBChB programme except where intergovernmental agreements are in place.
- Candidates, please note that your conditional admission will be revoked if your APS drops by more than two points in your final school examination results.
- Selection queries may be directed to healthapplications@up.ac.za.

University of Pretoria website www.up.ac.za/health
National Benchmark Test website www.nbt.ac.za

Programmes	Minimum requirements for 2020						APS
	Achievement level*						
	English Home Language or English First Additional Language		Mathematics		Physical Science		
	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level	
SCHOOL OF DENTISTRY							
BChD – Bachelor of Dental Surgery ¹ [5 years]	5	C	5	C	5	C	35
The suggested second-choice programme for BChD is BSc (Biological Sciences).							
Selection is based on Grade 11 results, the NBT and the Value-added Questionnaire. Careers: Dentists, specialists, academics and researchers							
BOH – Bachelor of Oral Hygiene ¹ [3 years]	4	D	4	D	4	D	25
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Selection is based on Grade 11 results and the NBT. Career: Oral hygienists							



Programmes	Minimum requirements for 2020						APS
	Achievement level*						
	English Home Language or English First Additional Language		Mathematics		Physical Science		
	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level	
SCHOOL OF HEALTHCARE SCIENCES							
BDietetics – Bachelor of Dietetics ¹ [4 years]	4	D	4	D	4	D	25
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Selection is based on Grade 11 results, the NBT and the Value-added Questionnaire. Career: Dietitians							
BNurs – Bachelor of Nursing Science ¹ [4 years]	4	D	-	-	-	-	28
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Selection is based on Grade 11 results, the NBT, the Value-added Questionnaire and an interview. Mathematics, Physical Science and Life Sciences are not compulsory subjects, but they will be an advantage for selection purposes. Careers: General nursing, psychiatric nursing, midwifery and community nursing							
BOT – Bachelor of Occupational Therapy ¹ [4 years]	4	D	4	D	4	D	30
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Selection is based on Grade 11 results, the NBT and the Value-added Questionnaire. Careers: Occupational therapists, academics and researchers							
BPhysio – Bachelor of Physiotherapy ¹ [4 years]	4	D	4	D	4	D	30
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Selection is based on Grade 11 results, the NBT and the Value-added Questionnaire. Careers: Physiotherapists, academics and researchers							
BRad – Bachelor of Radiography ¹ [3 years]	4	D	4	D	4	D	25
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Selection is based on Grade 11 results, the NBT and the Value-added Questionnaire. Taking Life Sciences is recommended for BRad, but is not compulsory. Careers: Radiographers, academics and researchers							
SCHOOL OF MEDICINE							
BCMP – Bachelor of Clinical Medical Practice ¹ [3 years]	4	D	4	D	-	-	25
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Selection is based on Grade 11 results and the Biographical Information Form. Physical Science and Life Sciences are not compulsory subjects, but will be an advantage for selection purposes. Careers: Clinical associates, academics and researchers							
MBChB – Bachelor of Medicine and Surgery ¹ [6 years]	5	C	5	C	5	C	35
The suggested second-choice programme for MBChB is BSc (Biological Sciences). A limited number of spaces are available for selection after the first semester.							
Selection is based on Grade 11 results, the NBT and the Value-added Questionnaire. Careers: General medical practitioners, specialists (after postgraduate training)							
BSportSci – Bachelor of Sports Science ¹ [3 years]	4	D	4	D	or Life Sciences		30
					4	D	
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Selection is based on Grade 11 results, the NBT and the Value-added Questionnaire. Careers: This course prepares students to work competently in the health, wellness and sporting environment. It is a prerequisite to apply for the BSc Honours programme in Sports Science or Biokinetics.							

* 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.



Faculty of Economic and Management Sciences

University of Pretoria website www.up.ac.za/ems
National Benchmark Test website www.nbt.ac.za

Programmes	Minimum requirements for 2020				APS
	Achievement level*				
	English Home Language or English First Additional Language		Mathematics		
	NSC/IEB	AS Level	NSC/IEB	AS Level	
BCom (Accounting Sciences) ³ [3 years]	5	C	6	B	34
The suggested second-choice programmes for BCom (Accounting Sciences) are BCom and BCom (Financial Sciences).					
Careers: First step towards qualifying as chartered accountants, external auditors, taxation professionals and advisors, and financial directors or managers					
BCom (Investment Management) ³ [3 years]	5	C	6	B	34
The suggested second-choice programmes for BCom (Investment Management) are BCom, BCom (Financial Sciences) and BCom (Economics).					
Careers: Fund managers, investment advisors, financial advisors, management consultants, stock brokers, investment analysts and investment bankers					
BCom (Financial Sciences) ³ [3 years]	5	C	5	C	32
The suggested second-choice programmes for BCom (Financial Sciences) are BCom and BCom – Extended programme.					
Careers with a focus on: <ul style="list-style-type: none">Financial accounting: Financial accountants, credit controllers, SAIPA (South African Institute of Professional Accountants) and ACCA (Association of Chartered Certified Accountants)Financial management: Management accountants, management consultants, financial advisors, cost accountants and financial managersTaxation: Tax advisors, tax auditors in public practice, tax policy designers, tax professionals, tax compliance managers, SARS auditors and tax risk managersInternal auditing: Internal auditors, risk officers, forensic auditors, IT auditors, performance auditors, environmental auditors, compliance officers, government auditors and governance auditors					
BCom (Econometrics) ³ [3 years]	5	C	6	B	32
The suggested second-choice programmes for BCom (Econometrics) are BCom, BCom (Statistics) and BCom (Economics).					
Careers: Econometricians are employed by government, the central bank, private and commercial banks, leading stockbrokers and consultancies, both locally and internationally. Positions include analysts, consultants, researchers, traders or brokers, and academics. The work mostly entails statistical analysis (forecasting, structural and policy analysis) of economic and financial markets and interrelationships.					
BCom (Economics) ³ [3 years]	5	C	5	C	32
The suggested second-choice programmes for BCom (Economics) are BCom and BCom – Extended programme.					
Careers: Economists may specialise in banking, public finance, international trade and investment or economic development. Economists are employed by government, the central bank, private and commercial banks, stock brokerage firms and consultancies, both locally and internationally. Positions include analysts, consultants, researchers, traders and academics.					
BCom (Law) ³ [3 years]	5	C	5	C	32
The suggested second-choice programmes for BCom (Law) are BA (Law) and LLB.					
Careers: First step towards becoming attorneys, legal advisors, advocates, prosecutors, presiding officers (magistrate or judge) and law academics					
BCom (Statistics) ³ [3 years]	5	C	5	C	32
The suggested second-choice programmes for BCom (Statistics) are BCom and BCom – Extended programme.					
Careers: Data scientists, statistical analysts in several industries, researchers, consultants and lecturers					
BCom (Informatics) Focus area: Information Systems ³ [3 years]	5	C	4	D	30
The suggested second-choice programmes for BCom (Informatics) Focus area: Information Systems are BCom and BCom – Extended programme.					
Careers: Managers in the information technology environment, computer software or hardware support, computer systems analyst, financial information systems analyst, business analyst, information facilitator, IT training officers, systems developer, business systems analyst					

PLEASE NOTE: Accountancy is not a subject requirement for any of the BCom and BAdmin programmes.

* 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.

Programmes	Minimum requirements for 2020					APS
	Achievement level*					
	English Home Language or English First Additional Language		Mathematics			
	NSC/IEB	AS Level	NSC/IEB	AS Level		
BCom (Agribusiness Management) ³ [3 years]	5	C	5	C	30	
The suggested second-choice programmes for BCom (Agribusiness Management) are BCom and BCom – Extended programme.						
Careers: Agricultural economists and agribusiness managers at commercial banks, agribusinesses and other agricultural and food-orientated institutions, as commodity traders on future markets on derivatives, producer organisations, consultants, valuers, researchers, policy makers. As managers and project managers in the above.						
BCom ³ [3 years]	5	C	4	D	30	
The suggested second-choice programmes for BCom are any other BCom degree as well as the BCom – Extended programme offered by the Faculty of Economic and Management Sciences.						
Careers: The degree does not lead to a specific vocational outcome, but offers opportunities to determine your own career outcome, within limits. Students are able to compile their own curricula with a view to work opportunities in all sectors.						
BCom (Business Management) ³ [3 years]	5	C	4	D	30	
The suggested second-choice programmes for BCom (Business Management) are BCom, BCom (Supply Chain Management) and BCom – Extended programme.						
Careers: A wide variety of opportunities in administration, finance, marketing and human resource management, including teacher, lecturer, general manager, management consultant						
BCom (Supply Chain Management) ³ [3 years]	5	C	4	D	30	
The suggested second-choice programmes for BCom (Supply Chain Management) are BCom, BCom (Business Management) and BCom – Extended programme.						
Careers: The purpose of this programme is to equip learners of supply chain management with the ability to participate in functional management within an integrated supply chain. This includes the disciplines of supply management, production and operations management, warehousing, transport management and supply chain strategy.						
BCom (Marketing Management) ³ [3 years]	5	C	4	D	30	
The suggested second-choice programmes for BCom (Marketing Management) are BCom, BCom (Business Management) and BCom – Extended programme.						
Careers: Product management, customer service management, customer relationship management, strategic marketing, sales management, brand management, advertising management, media planning, marketing research management and promotions management						
BCom (Human Resource Management) ³ [3 years]	5	C	4	D	30	
The suggested second-choice programmes for BCom (Human Resource Management) are BCom, BCom (Business Management) and BCom – Extended programme.						
Careers: Human resource practitioners, human resource consultants, mediators, labour relations specialists, human resource managers, personnel managers, training officers, liaison officers, psychometrists and industrial psychologists. In their capacity as human resource practitioners, graduates will be responsible for matters such as developing human resource strategies and policies, human resource planning, recruitment and selection of employees, training and development of staff, labour relations and personnel administration.						
BCom – Extended programme ³ [4 years]	4	D	3	E	26	
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.						
Note: The first year of study is presented at the Mamelodi Campus. Admission is subject to selection. Careers: Career opportunities depend on the field of study chosen by students in their second year of study.						
BAdmin (Public Management and International Relations) ³ [3 years]	5	C	Mathematics 3 or Mathematical Literacy 4	D	28	
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.						
Careers: Diplomats, political analysts, managers in the public sector, local government and the private sector, non-governmental organisations, international organisations and embassies. Graduates are often employed in human resource sections, planning divisions and in general administrative divisions.						

Closing dates: 1 SA – 31 May • Non-SA – 31 May 2 SA – 30 June • Non-SA – 30 June 3 SA – 30 September • Non-SA – 31 August
Applications for non-selection programmes will not be considered if admission capacity is reached before the stated closing date.

Faculty of Engineering, Built Environment and Information Technology

Important information on undergraduate programmes for 2020

- Conditional admission to the four-year programmes in the School of Engineering is only guaranteed if a prospective student complies with ALL the requirements as indicated in the table.
Note: Candidates who do not comply with the minimum requirements, but who have obtained a minimum APS of 30, an achievement level of 5 for English, 6 for Mathematics and 5 for Physical Science, will be considered for conditional admission to either the four-year programme or the ENGAGE programme based on the results of the compulsory NBT.
- Admission to ENGAGE in the School of Engineering will be determined by the results of the NBT, the NSC and an achievement level of 5 in Mathematics and 5 in Physical Science, as well as an achievement level of 5 in English, together with an APS of 30.
- Students may apply directly to be considered for the ENGAGE programme.

University of Pretoria website www.up.ac.za/ebit
National Benchmark Test website www.nbt.ac.za

Programmes	Minimum requirements for 2020						APS
	Achievement level*						
SCHOOL OF ENGINEERING	English Home Language or English First Additional Language		Mathematics		Physical Science		
	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level	
BEng (Industrial Engineering) ³ [4 years]	5	C	6	B	6	B	35
The suggested second-choice programmes for BEng (Industrial Engineering) are BSc (Chemistry), BSc (Mathematics) and BSc (Physics).							
Careers: Industrial engineers design, test, implement and manage a wide range of man/machine systems for the delivery of production and 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.							
BEng (Chemical Engineering) ³ [4 years]	5	C	6	B	6	B	35
The suggested second-choice programmes for BEng (Chemical Engineering) are BSc (Chemistry), BSc (Mathematics) and BSc (Physics).							
Careers: Chemical engineers are involved in industrial processes that convert raw materials into products with a higher economic value. This is achieved by means of 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, as well as environmental engineering activities, including air pollution control. Like 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 as well as marketing and distribution of final products.							
BEng (Civil Engineering) ³ [4 years]	5	C	6	B	6	B	35
The suggested second-choice programmes for BEng (Civil Engineering) are BSc (Chemistry), BSc (Mathematics) and BSc (Physics).							
Careers: Civil engineers design, build and maintain constructions such as tower blocks and skyscrapers, dams, canals and pipelines, roads, bridges, tunnels, railways, airports, power stations, towers, water works and outfall installations. They are involved in financial modelling, feasibility studies and the management and rehabilitation of large asset portfolios.							
BEng (Computer Engineering) ³ [4 years]	5	C	6	B	6	B	35
The suggested second-choice programmes for BEng (Computer Engineering) are BSc (Chemistry), BSc (Mathematics) and BSc (Physics).							
Careers: Computer engineers are active in all fields of the information superhighway and the information and communication technology (ICT) world, which include computer systems, software engineering, computer and communications networks, wireless sensor networks, embedded software, electronics, smart control systems and automation, data security, e-commerce, pattern recognition (face and speech recognition), and artificial intelligence. They specialise in combining hardware, software and communication technologies to optimise system performance.							
BEng (Electrical Engineering) ³ [4 years]	5	C	6	B	6	B	35
The suggested second-choice programmes for BEng (Electrical Engineering) are BSc (Chemistry), BSc (Mathematics) and BSc (Physics).							
Careers: Electrical engineers are active in the generation, storage, transmission, distribution and utilisation of electrical energy. There is a brilliant future in renewable energy. Electrical engineers design, supervise the construction, oversee the optimal operation and assure perfect and timely maintenance of all electrical installations for municipalities, residential areas, commercial buildings, factories, mines and industries. Rail transport, water pumping, electrical grids, telecommunications, energy management and smart lighting are all fields of application of electrical engineering.							
BEng (Electronic Engineering) ³ [4 years]	5	C	6	B	6	B	35
The suggested second-choice programmes for BEng (Electronic Engineering) are BSc (Chemistry), BSc (Mathematics) and BSc (Physics).							
Careers: Electronic engineers are active in various fields, such as telecommunications (fixed networks, wireless, satellite, television, radar and radio frequency networks), entertainment and medicine (magnetic resonance imaging, X-rays, cardiopulmonary resuscitation, infrared tomography, electroencephalograms (EEG), electrocardiograms (ECG), rehabilitation engineering and biokinetics), integrated circuit design, bioengineering, military (vehicle electronics, smart bombs, night vision, laser systems), transport (e-tags, speed measuring, railway signalling, global positioning system (GPS) and mapping), 'smart' dust, safety and security systems (face and speech recognition), banking (ATMs), commerce, robotics, education, environmental management, tourism and many more.							



Programmes	Minimum requirements for 2020						APS
	Achievement level*						
SCHOOL OF ENGINEERING	English Home Language or English First Additional Language		Mathematics		Physical Science		APS
	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level	
BEng (Mechanical Engineering) ³ [4 years]	5	C	6	B	6	B	35
The suggested second-choice programmes for BEng (Mechanical Engineering) are BSc (Chemistry), BSc (Mathematics) and BSc (Physics).							
Careers: Mechanical and aeronautical engineers are concerned with power-generating machines and systems such as vehicles, ships, air-conditioners, pebble bed nuclear reactors, aeroplanes, engines and turbines, robots and biomedical systems. Areas of specialisation include product design and manufacturing (such as design, testing and improvement of mechanical, electrical, pneumatic and hydraulic systems), marine engineering and naval architecture, biomedical engineering, air-conditioning and refrigeration, aerospace systems and aircraft/ missile engineering, vehicle engineering, maintenance engineering and energy management (gas and steam turbines, nuclear power reactors, petrol engines, cooling towers and renewable energy systems).							
BEng (Metallurgical Engineering) ³ [4 years]	5	C	6	B	6	B	35
The suggested second-choice programmes for BEng (Metallurgical Engineering) are BSc (Chemistry), BSc (Mathematics) and BSc (Physics).							
Careers: Metallurgical engineers unlock the riches of deposits of metal ores, coal and diamonds and optimise the manufacture of metal components. They work in plants where valuable minerals are recovered from ore, where metals are produced out of the minerals and where the metals are converted into useful materials, such as steel or aluminium. Careers include production engineers, plant managers, consultants and researchers.							
BEng (Mining Engineering) ³ [4 years]	5	C	6	B	6	B	35
The suggested second-choice programmes for BEng (Mining Engineering) are BSc (Chemistry), BSc (Mathematics) and BSc (Physics).							
Careers: Mining engineers have a wide range of opportunities, namely mining (mine management, technical management of ventilation, rock mechanics, rock breaking, mineral resources), financial evaluation and management (mine design, mine financial evaluation, mine feasibility studies, mine environmental impact studies), mining and drilling contracting (mining, tunnelling, shaft sinking, mine development, ore evaluation), mining research, mining equipment design and manufacture, mining marketing and mining administration at national, provincial or international level.							
Engineering Augmented Degree Programme (ENGAGE) ³ [5 years]	5	C	5	C	5	C	30
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Note: The admission requirements above are relevant to prospective students who commence their studies in 2020. Candidates who do not comply with the minimum requirements mentioned above, but who do comply with the requirements of the ENGAGE programme, must write the NBT.							

For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.

Note: The admission requirements above are relevant to prospective students who commence their studies in 2020. Candidates who do not comply with the minimum requirements mentioned above, but who do comply with the requirements of the ENGAGE programme, must write the NBT.

* 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.

Closing dates: 1 SA – 31 May • Non-SA – 31 May 2 SA – 30 June • Non-SA – 30 June 3 SA – 30 September • Non-SA – 31 August
Applications for non-selection programmes will not be considered if admission capacity is reached before the stated closing date.

Programmes	Minimum requirements for 2020						
	Achievement level*						
SCHOOL FOR THE BUILT ENVIRONMENT	English Home Language or English First Additional Language		Mathematics		Physical Science		APS
	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level	
BSc (Architecture) ¹ [3 years]	5	C	4	D	4	D	27
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Will only be considered as first study choice. Please read the notification at the bottom of this page. Selection programme: Selection includes an interview. Careers: The BSc (Architecture) degree programme enables graduates to register with the South African Council for the Architectural Profession (SACAP) as candidate architectural technologists. The qualification is the first step to future registration as a candidate senior architectural technologist or a candidate architect.							
BSc (Interior Architecture) ¹ [3 years]	5	C	4	D	4	D	27
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Will only be considered as first study choice. Please read the notification at the bottom of this page. Selection programme: Selection includes an interview. Careers: The BSc (Interior Architecture) degree programme enables graduates to register with The African Institute of the Interior Design Professions (IID) as candidate interior designers. This qualification is the first step to future registration as a candidate senior interior designer or a candidate interior architect.							
BSc (Landscape Architecture) ¹ [3 years]	5	C	4	D	or Geography or Life Sciences 4 D		27
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Selection programme: Selection includes an interview. Please read the notification at the bottom of this page. Careers: The BSc (Landscape Architecture) degree programme enables graduates to register with the South African Council for the Landscape Architectural Profession (SACLAP) as candidate landscape architectural technologists. This qualification is the first step to future registration as a candidate landscape architect.							
BSc (Construction Management) ³ [3 years]	5	C	5	C	or Accounting 4 D		30
The suggested second-choice programme for BSc (Construction Management) is BSc (Real Estate).							
Selection programme Careers: After completing the three-year undergraduate degree programme, graduates could enter careers, in among others, construction site management or as subcontractors. On completion of the ensuing one-year honours programme, graduates are able to register as professional construction managers and opportunities become much wider, including project management, property development, portfolio management, commercial marketing and managerial positions in the corporate environment.							
BSc (Real Estate) ³ [3 years]	5	C	5	C	or Accounting 4 D		30
The suggested second-choice programme for BSc (Real Estate) is BCom (Investment Management).							
Selection programme Careers: Apart from a future in areas such as property investment, property finance and facilities and property management, further studies to obtain an honours degree in real estate can lead to registration as professional property valuers. Career opportunities encompass the whole spectrum of the property sector, whether as entrepreneurs in the private sector or as employees in the private, government or semi-government sectors.							
BSc (Quantity Surveying) ³ [3 years]	5	C	5	C	or Accounting 4 D		30
The suggested second-choice programmes for BSc (Quantity Surveying) are BSc (Construction Management) and BSc (Real Estate).							
Selection programme Careers: Quantity surveying is the science that delivers specialised financial and contractual services and advice to clients in the building and construction industry, as well as related industries. The three-year undergraduate degree is the first step towards registration as quantity surveyors. The ensuing one-year honours programme leads to registration as candidate professional quantity surveyors. Career opportunities, apart from those in the private, government or semi-government sectors, also exist in the property, banking, mining and manufacturing industries.							
BTRP – Bachelor of Town and Regional Planning ³ [4 years]	5	C	4	D	-		27
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Selection programme Careers: Town and regional planners, development practitioners, urban managers, real estate analysts and researchers. While many town and regional planners act as private consultants to the public and private sector, most are employed by government, research agencies such as the Council for Scientific and Industrial Research (CSIR) and the Human Sciences Research Council (HSRC), non-governmental organisations, community-based organisations, major financial institutions and property development groups. The qualification will enable graduates to register as professional town and regional planners with the South African Council for Planners.							

Programmes	Minimum requirements for 2020					
	Achievement level*				APS	
	English Home Language or English First Additional Language		Mathematics			
SCHOOL OF INFORMATION TECHNOLOGY	NSC/IEB	AS Level	NSC/IEB	AS Level		
BIT – Bachelor of Information Technology ³ [4 years]	5	C	5	C	30 (26–29 admission based on the NBT)	
The suggested second-choice programmes for BIT – Bachelor of Information Technology are BSc (Computer Science), BIS (Multimedia) and BCom (Informatics).						
Should a candidate obtain an APS of 26 to 29, consideration for admission will be based on the results of the NBT, provided the numbers of students in designated groups have not been reached. Careers: Information technologists, programmers, system analysts, computer consultants, and buyers of hardware and software. This programme provides knowledge and understanding of the theory and practice of programming and software engineering; theory and the practice of the adoption and use of information systems in business organisations; aspects of collecting, retrieving, organising, managing and using information; philosophy, language and mathematics.						
BIT (Information Systems) ³ [3 years]	5	C	4	D	30 (26–29 admission based on the NBT)	
The suggested second-choice programme for BIT (Information Systems) is BIS (Information Science).						
Careers: Data scientist, IT auditor, geographical information specialist, IT entrepreneur, IT tax specialist, e-business consultant, programmer, business analyst, project manager, CIO, CTO, knowledge manager.						
BSc (Computer Science) ³ [3 years]	5	C	5	C	30 (26–29 admission based on the NBT)	
The suggested second-choice programmes for BSc (Computer Science) are BSc (Information and Knowledge Systems) and BCom (Informatics).						
Should a candidate obtain an APS of 26 to 29, consideration for admission will be based on the results of the NBT, provided the numbers of students in designated groups have not been reached. Careers: Programmers, systems analysts, systems architects, consultants, database administrators, network analysts and researchers.						
BIS (Multimedia) ³ [3 years]	4	D	5	C	30 (26–29 admission based on the NBT)	
The suggested second-choice programmes for BIS (Multimedia) are BIS (Information Science), BIS (Publishing), BSc (Information and Knowledge Systems) and BCom (Informatics).						
Should a candidate obtain an APS of 26 to 29, consideration for admission will be based on the results of the NBT, provided the numbers of students in designated groups have not been reached. Careers: Programmers, web designers, animation specialists, video editors, electronic artists. The programme prepares candidates for positions at any of the following content producers: paper publications, television, radio, phone technologies and the web. Graduates can become coders and work for programming companies. They can develop skills in their particular areas of interest, such as digital music or video programming; or graphic, games or web development.						
BSc (Information and Knowledge Systems) ³ [3 years]	4	D	5	C	30 (26–29 admission based on the NBT)	
The suggested second-choice programme for BSc (Information and Knowledge Systems) is BSc (Computer Science).						
Should a candidate obtain an APS of 26 to 29, consideration for admission will be based on the results of the NBT, provided the numbers of students in designated groups have not been reached. Careers: Graduates will differentiate themselves in an application environment by choosing one of the following options: data science, genetics, geographical information systems, IT and enterprises, IT and law, IT and music or software development.						
BIS (Information Science) ³ [3 years]	4	D	-	-	28 (25–27 admission based on the NBT)	
The suggested second-choice programmes for BIS (Information Science) are BIS (Publishing), BCom (Informatics) and BA.						
Should a candidate obtain an APS of 25 to 27, consideration for admission will be based on the results of the NBT, provided the numbers of students in designated groups have not been reached. If informatics is selected at first-year level, an achievement level of 5 is required in Mathematics. Careers: Information and knowledge managers (manage information and knowledge resources), information or e-commerce specialists (organise, retrieve and add value to information), consultants on information products (services and systems), information brokers (act as infopreneurs and buy and sell information products and services), and system specialists/analysts/technologists (develop information systems).						
BIS (Publishing) ³ [3 years]	5	C	-	-	28 (25–27 admission based on the NBT)	
The suggested second-choice programmes for BIS (Publishing) are BIS (Information Science), BA (Languages) and BA.						
Should a candidate obtain an APS of 25 to 27, consideration for admission will be based on the results of the NBT, provided the numbers of students in designated groups have not been reached. Careers: Entry-level job opportunities include assisting specific role-players in the publishing value chain (such as MDs of publishing houses, commissioning editors, editors, and production or marketing managers), market or picture research, copyright negotiations, copy-editing and proofreading, marketing and promotion, distribution and delivery.						
BCom (Informatics) Focus area: Information Systems ³ [3 years]	5	C	4	D	30	
This programme is administered by the Faculty of Economic and Management Sciences.						



* 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.

Notification: If the Faculty receives an insufficient number of applications for BSc (Interior Architecture) and/or BSc (Landscape Architecture) these programmes might not be offered in 2020. Should one or both of these programmes not be offered, those applicants that met the requirements and would have been selected for these programmes will then be accommodated in BSc (Architecture).

Closing dates: **1** SA – 31 May • Non-SA – 31 May **2** SA – 30 June • Non-SA – 30 June **3** SA – 30 September • Non-SA – 31 August
Applications for non-selection programmes will not be considered if admission capacity is reached before the stated closing date.

Faculty of Humanities

Important information on undergraduate programmes for 2020

- To retain admission, candidates will be expected to obtain an APS of at least 28 in the NSC. Prospective students who have already been granted conditional admission, and obtained at least an APS of 26 or 27 in the NSC, will be considered by the Admissions Committee of the Faculty of Humanities, subject to the availability of space and the results of the National Benchmark Test (NBT). However, these requirements are NOT applicable to the following programmes: BA (Speech-Language Pathology), BA (Audiology), BSocSci (Philosophy, Politics and Economics), and BA (Law). The required APS for these programmes is 32 in order to retain admission.
- Applicants who meet the minimum APS requirement, but who do not comply with the subject requirements must write the NBT.

University of Pretoria website
National Benchmark Test website
Non-NSC applicants

www.up.ac.za/faculty-of-humanities
www.nbt.ac.za
www.up.ac.za/en/student-administration/
article/257127/applications

Programme	Minimum requirements for 2020			APS
	Achievement level*		30	
	English Home Language or English First Additional Language			
	NSC/IEB	AS Level		
BA ³ [3 years]	5	C	30	
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.				
Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission. Careers: Students who complete the BA programme, have access to a wide range of careers. Many of the careers indicated under other programmes can be recommended to students who choose the BA programme, because it is often possible to choose the same majors and elective modules in this programme as one can in the more structured programmes. Students should approach the academics in the Faculty for advice.				
Please note that students who wish to follow a career as a psychologist, should successfully complete the BA programme with psychology as a major, as well as the BSocSciHons (Psychology) and the MA (Clinical or Counselling Psychology). Careers: Clinical, counselling (sport and community) and research psychologist, registered counsellor or registered psychometrist.				

Programmes	Minimum requirements for 2020				APS
	Achievement level*			English Home Language or English First Additional Language	
	Mathematics		NSC/IEB		
	NSC/IEB	AS Level			
PROFESSIONAL PROGRAMMES					
BA (Speech-Language Pathology) ² [4 years]	5	C	5	C	32
For advice on a second-choice programme, please consult the Programme Manager at +27 (0)12 420 3614.					
Departmental selection is based on academic achievement. Candidates will be expected to achieve an APS of at least 32 in the NSC to retain admission. Only 50 students are admitted. The provisional selection process commences in July of the year preceding the first year of study. More information can be obtained from the programme coordinator. The first study year of Audiology and Speech-Language Pathology is the same. The NBT is not applicable to this programme. NOTE: We will consider both first and second choice applications for BA (Speech-Language Pathology). Careers as a speech-language therapist: Work in education and special education, hospitals, clinics, rural communities or in private practices, government, military and academic institutions (teaching and research)					
BA (Audiology) ² [4 years]	5	C	5	C	32
For advice on a second-choice programme, please consult the Programme Manager at +27 (0)12 420 6774.					
Departmental selection is based on academic achievement. Candidates will be expected to achieve an APS of at least 32 in the NSC to retain admission. Only 50 students are admitted. The provisional selection process commences in July of the year preceding the first year of study. More information can be obtained from the programme coordinator. The first study year of Audiology and Speech-Language Pathology is the same. The NBT is not applicable to this programme. NOTE: We will consider both first and second choice applications for BA (Audiology). Careers as an audiologist: Diagnostic and rehabilitative audiology, audiometry and hearing therapy, work in education, special education, hospitals, clinics, private practice, government, military and academic institutions (teaching, research) industry					
Bachelor of Social Work (BSW) ³ [4 years]		5	C		30
The suggested second-choice programme for Bachelor of Social Work (BSW) is BA.					
Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission. Departmental selection takes place at the end of the first year and is based on academic merit, an aptitude test and an interview. Career: Social worker					
BA (Law) ³ [3 years]		5	C		30
The suggested second-choice programmes for BA (Law) are LLB, BCom (Law) and BA.					
Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission. The NBT is not applicable to this programme. Career: Lawyer (BA (Law) degree plus the LLB degree required)					

* 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.

Programmes	Minimum requirements for 2020				
	Achievement level*				APS
	Mathematics		English Home Language or English First Additional Language		
	NSC/IEB	AS Level	NSC/IEB	AS Level	

SPECIALISED PROGRAMMES				
BA (Languages) ³ [3 years]	5	C		30
The suggested second-choice programme for BA (Languages) is BA.				
Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission. Careers: Advertising, media and communication, copywriting, creative writing, text and document design, editing, language planning, language teaching and training, lexicography (compilation of dictionaries), technical writing, public relations, translation, publishing, diplomatic sector, tourism. It is recommended that in order to follow these career paths (as language practitioners) and to specialise in these fields, students continue with a BAHons (Applied Language Studies) on completion of the BA (Languages) degree. By continuing with a Postgraduate Certificate in Education, students are equipped to enter the teaching profession.				
BSocSci (Industrial Sociology and Labour Studies) ³ [3 years]	5	C		30
The suggested second-choice programme for BSocSci (Industrial Sociology and Labour Studies) is BA.				
Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission. Careers: Labour relations practice, arbitration, conflict management and resolution, labour administration and research, gender issues and dismissals, work for government institutions, parastatals, private sector and trade union organisations				
BSocSci (Heritage and Cultural Tourism) ³ [3 years]	5	C		30
The suggested second-choice programme for BSocSci (Heritage and Cultural Tourism) is BA or consult the Programme Manager at +27 (0)12 420 5956.				
Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission. Careers: Archivists, consultants, museum experts (curators, managers), researchers, teachers, tour leaders, tour operators, tour entrepreneurs and heritage resource managers				
BSocSci (Philosophy, Politics and Economics) ³ [3 years]	5	C	5	C 32
The suggested second-choice programmes for BSocSci (Philosophy, Politics and Economics) are BPolSci (International Studies) and BPolSci (Political Studies) or consult the Programme Manager at +27 (0)12 420 2326.				
Candidates will be expected to achieve an APS of at least 32 in the NSC to retain admission. Students interested in the BSocSci (Philosophy, Politics and Economics) programme not complying with the 5 in Mathematics for the programme, but with an APS of 32, and a 5 in English, may be admitted into another degree for the first year. If they register for STK 113 and 123 in their first year of study, and they pass each of these with 60%, they will however then have the option to apply for an internal transfer to the BSocSci (Philosophy, Politics and Economics) in their second year of study. The NBT is not applicable to this programme. Careers: Gives students entrance into a variety of careers related to economic or political policy making, from journalism to careers in the diplomatic service				
BPolSci (International Studies) ³ [3 years]	5	C		30
The suggested second-choice programmes for BPolSci (International Studies) are BPolSci (Political Studies) and BA.				
Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission. Careers: International relations, diplomatic service, political consultation, conflict resolution, policy analysis, strategic intelligence, governance, international political economics and risk analysis				
BPolSci (Political Studies) ³ [3 years]	5	C		30
The suggested second-choice programmes for BPolSci (Political Studies) are BPolSci (International Studies) and BA.				
Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission. Careers: Policy analysis and consultation, political analysis and communication, governance, conflict resolution, strategic intelligence, political development and mobilisation and risk analysis				



Closing dates: 1 SA – 31 May • Non-SA – 31 May 2 SA – 30 June • Non-SA – 30 June 3 SA – 30 September • Non-SA – 31 August
Applications for non-selection programmes will not be considered if admission capacity is reached before the stated closing date.

Programmes	Minimum requirements for 2020		
	Achievement level*		APS
	English Home Language or English First Additional Language		
	NSC/IEB	AS Level	
SPECIALISED PROGRAMMES (continued)			
BA (Fine Arts) ² [4 years]	5	C	30
For advice on a second-choice programme, please consult the Programme Manager at +27 (0)12 420 6783.			
<p>Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission. Departmental selection for this programme involves a merit selection and a final selection, as well as the submission of a questionnaire and a portfolio of at least 20 recent works, which must be submitted to the Department of Visual Arts by 30 June. To ensure that the Department receives applications by 30 June, candidates are advised to complete and submit their online application on the UP Portal at least two weeks before the deadline. Candidates also need to book a provisional date for the final selection process by 30 June. The final selection process consists of an interview and selection tests. Detailed information about the selection process steps, including the portfolio requirements and the questionnaire, can be obtained at www.up.ac.za/visualarts. Candidates will be notified by email and/or SMS whether they qualify for the final selection process or not, before the final selection dates. The interview booking for qualifying candidates is automatically confirmed. The final selection process takes place during July. Approximately 100 applicants will be invited to take part in the final selection process. Candidates will be notified by mid-August of the result of the final selection. The UP online status of applicants will be updated accordingly in September.</p> <p>Careers: Gallery managers, arts facilitators, art consultants/advisors, art educators, artists in the fine arts, artists in new media, artists in applied arts</p>			
BA (Information Design) ² [4 years]	5	C	30
For advice on a second-choice programme, please consult the Programme Manager at +27 (0)12 420 3194/3686.			
<p>Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission. Departmental selection for this programme involves a merit selection and a final selection, as well as the submission of a questionnaire and a portfolio of at least 20 recent works, which must be submitted to the Department of Visual Arts by 30 June. To ensure that the Department receives applications by 30 June, candidates are advised to complete and submit their online application on the UP Portal at least two weeks before the deadline. Candidates also need to book a provisional date for the final selection process by 30 June. The final selection process consists of an interview and selection tests. Detailed information about the selection process steps, including the portfolio requirements and the questionnaire, can be obtained at www.up.ac.za/visualarts. Candidates will be notified by email and/or SMS whether they qualify for the final selection process or not before the final selection dates. The interview booking for qualifying candidates is automatically confirmed. The final selection process takes place during July. Approximately 100 applicants will be invited to take part in the final selection process. Candidates will be notified by mid-August of the result of the final selection. The UP online status of applicants will be updated accordingly in September.</p> <p>Careers: Animators, graphic designers, illustrators, interaction designers, communication designers, art directors, media production managers, design managers, designers of animation and motion graphics, design educators, media designers, typographers for advertising and branding agencies; publishing industries; web design companies; broadcast and animation studios; in-house design for large companies, state and parastatal organisations, research and educational institutions; public relations and marketing companies; design consultants; printers and production houses; owners of private studios, or freelance designers</p>			
BA (Visual Studies) ³ [3 years]	5	C	30
The suggested second-choice programme for BA (Visual Studies) is BA.			
<p>Candidates will be expected to achieve an APS of at least 28 in the NSC to retain admission.</p> <p>Careers: Art and film critics, visual culture specialists, arts and culture educators, academics, art historians, curators, visual analysts, visual consultants, media and communication analysts, social media coordinators, gallery managers</p>			
Bachelor of Music (BMus) ² [4 years]	5	C	30
The suggested second-choice programme for Bachelor of Music (BMus) is BA or consult the Programme Manager at +27 (0)12 420 3747.			
<p>Departmental selection is based on a practical singing or instrument performance of 15 minutes, as well as a theoretical test. Required subjects: Music with at least a 4 (50–59%) as Grade 12 subject, or Grade VII Practical and Grade V Theory (Unisa/Royal Schools/Trinity), as well as knowledge of music notation. Students who have been conditionally selected for BMus must undergo another practical selection test. The date of this selection will take place in consultation with the programme coordinator. Candidates who are selected, will be expected to achieve an APS of at least 28 in the NSC to retain admission. The NBT is not applicable to this programme.</p> <p>Careers: Music teachers, music technicians, solo and/or chamber music performers, orchestral musicians and composers</p>			
Bachelor of Music (BMus) – Extended programme ² [5 years]	4	D	26
For advice on a second-choice programme, please consult the Programme Manager at +27 (0)12 420 3747.			
<p>Departmental selection is based on a practical singing or instrument performance of 15 minutes, as well as a theoretical test. Required subjects: Music with at least a 4 (50–59%) as Grade 12 subject, or Grade V Practical and Grade III Theory (Unisa/Royal Schools/Trinity), or comparable standard. The date of this selection will take place in consultation with the programme coordinator. Candidates who are selected, will be expected to achieve an APS of at least 26 in the NSC to retain admission. Should the English results be below 50%, the candidate will be expected to obtain at least 51% in the NBT for the section Academic Literacy (AL). The candidates will be required to write the NBT as soon as possible to allow their application to be forwarded to the Department for further selection and auditions.</p> <p>Careers: Music teachers, music technicians, solo and/or chamber music performers, orchestral musicians and composers</p>			
Bachelor of Drama (BDram) ² [3 years]	5	C	30
The suggested second-choice programme for Bachelor of Drama (BDram) is BA or consult the Programme Manager at +27 (0)12 420 2643.			
<p>Departmental selection is based on an audition in August of the year preceding students' first year of study. Candidates who are selected, will be expected to achieve an APS of at least 28 in the NSC to retain admission. The NBT is not applicable to this programme.</p> <p>Careers: Actors (theatre, film, television and radio), physical theatre artists, theatre critics, radio and television presenters, directors, educational theatre practitioners and educators, community theatre artists and educators, light and sound operators, voice artists, stage and production managers, programme facilitators and managers, performing arts administrators, camera operators, documentary film-makers, digital and new media editors, playwrights, scriptwriters, play devisors, film and theatre researchers</p>			

* 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.

Faculty of Veterinary Science

Important information on undergraduate programmes for 2020

- Both undergraduate programmes in this Faculty include selection procedures within different categories which are based on merit.
- The following persons may be considered for admission:
 - candidates who are currently in Grade 12 and have applied with their final Grade 11 results;
 - candidates who have completed Grade 12, but have not yet commenced further studies at a recognised higher education institution;
 - candidates who are in possession of a certificate that is deemed by the University to be equivalent to the required Grade 12 certificate with university endorsement. This certificate must be certified by Universities South Africa (USAf);
 - candidates who are currently enrolled for tertiary education at a recognised higher education institution;
 - candidates who are graduates from another recognised higher education 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.
- School-leaving applicants who are conditionally admitted, based on their final Grade 11 results, will forfeit their placement if their Grade 12 NSC Admission Point Score (APS), is more than two points lower than the Grade 11 APS used for conditional admission.

Note: Achieving the minimum admission requirements does not guarantee a place in the BVSc or BVetNurs programme of the University of Pretoria. Any false information provided by an applicant in his/her application, or on the Veterinary Value Added Form, may result in immediate cancellation of the application.

University of Pretoria website
Enquiries

www.veterinary.up.ac.za
vetug@up.ac.za

Programme	Minimum requirements for 2020						APS
	Achievement level*						
	English Home Language or English First Additional Language		Mathematics		Physical Science		
	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level	
Bachelor of Veterinary Science (BVSc) ¹ [6 years]	5	C	5	C	5	C	35
The suggested second-choice programmes for BVSc are BSc (Biological Sciences), BSc (Zoology) and BScAgric (Animal Science).							
Careers: Veterinarians in private practice, research, academia or state veterinary services. Veterinarians can also work in the following fields: diagnostic laboratories, veterinary public health (milk and meat hygiene, control of transfer of disease), technical services, research and product development in pharmaceutical and food industries, consultancy, laboratory animal management, wildlife management, poultry and pig production and animal welfare.							
Bachelor of Veterinary Nursing (BVetNurs) ¹ [3 years]	4	D	4	D	4	D	28
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.							
Careers: Veterinary nurses can be employed by the following institutions: private veterinary practices, veterinary academic hospitals, the pharmaceutical industry, the animal food industry, animal welfare societies, zoological gardens, game parks, laboratory animal units, rehabilitation centres, research centres, animal boarding establishments, organised agriculture, dairies and farming operations.							



Closing dates: 1 SA – 31 May • Non-SA – 31 May 2 SA – 30 June • Non-SA – 30 June 3 SA – 30 September • Non-SA – 31 August
Applications for non-selection programmes will not be considered if admission capacity is reached before the stated closing date.

Faculty of Education

Important information on undergraduate programmes for 2020

- Prospective students with an APS of 26-27 must write the National Benchmark Test (NBT).
- Final admission is determined by the Admissions Committee of the Faculty and is based on the results of the NBT.

University of Pretoria website www.up.ac.za/education
National Benchmark Test website www.nbt.ac.za

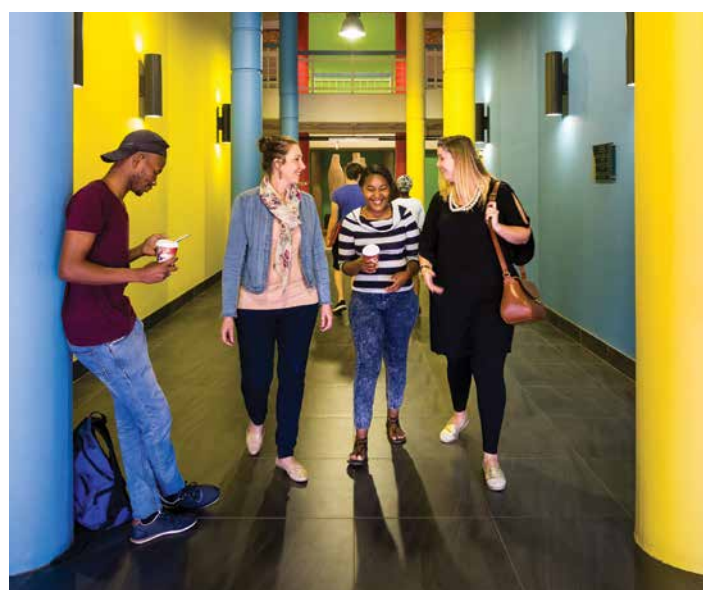
Programmes	Minimum requirements for 2020		
	Achievement level*		APS
	English Home Language or English First Additional Language	NSC/IEB	
BEd (Foundation Phase Teaching) ³ [Pre-primary to Grade 3] [4 years]	4	D	28 (26-27 admission based on the NBT)
The suggested second-choice programmes for BEd (Foundation Phase Teaching) [Pre-primary to Grade 3] are any other BEd programme.			
Careers: Teachers and training officials in pre-primary or primary schools			
BEd (Intermediate Phase Teaching) ³ [Grades 4 to 6] [4 years]	4	D	28 (26-27 admission based on the NBT)
The suggested second-choice programmes for BEd (Intermediate Phase Teaching) [Grades 4 to 6] are any other BEd programme.			
Careers: Teachers and training officials in primary schools			
BEd (Senior Phase and Further Education and Training Teaching) ³ [Grades 7 to 12] [4 years]	4	D	28 (26-27 admission based on the NBT)
An additional subject requirement for elective modules in economic and management sciences is Mathematics, passed with an achievement level of 4 (50%-59%) in Grade 12.			
Additional subject requirements for elective modules in natural sciences are Physical Science, passed with an achievement level of 5 (60%-69%), and Mathematics passed with an achievement level of 5 (60%-69%) in Grade 12.			
The suggested second-choice programmes for BEd (Senior Phase and Further Education and Training Teaching) [Grades 7 to 12] are any other BEd programme.			
Careers: Teachers and training officials in primary or secondary schools			
Higher Certificate in Sports Science Education ³ [1 year]	4	D	20
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.			
Selection process: <ul style="list-style-type: none"> Applicants who indicate Higher Certificate in Sports Science Education as first or second choice will be considered. All applicants will be considered by the Student Administration of the Faculty based on the admission requirements. Applicants that meet the academic requirements will then be further considered in collaboration with TuksSport for the different sports codes according to their sport achievements. Students who have been nominated by an official sports club of the University will receive first option for selection. Selection is also based on the Grade 12 sporting achievements. Candidates who do not have bachelor's study endorsement may be admitted to the BEd degree on successful completion of the Higher Certificate in Sports Science Education subject to Senate discretionary approval. Selection to this programme is restricted to students endorsed by TuksSport only. 			
Careers: Sports coaching and the sports and exercise industry			



Faculty of Theology and Religion

University of Pretoria website www.up.ac.za/theology
National Benchmark Test website www.nbt.ac.za

Programmes	Minimum requirements for 2020		
	Achievement level*		APS
	English Home Language or English First Additional Language	NSC/IEB	
BDiv – Bachelor of Divinity ³ (for admission to MDiv studies) [4 years]	4	D	25
The suggested second-choice programmes for BDiv – Bachelor of Divinity are BTh – Bachelor of Theology and DipTh – Diploma in Theology.			
Careers: Ministers, pastors, priests, preachers in certain denominations, missionaries and youth counsellors. Other possibilities include ethics consultants to businesses. Theological studies can be enriching for people in various other vocations. If prospective students are interested in ordained ministry, this should also be discussed with their church leadership.			
BTh – Bachelor of Theology ³ [3 years]	4	D	25
The suggested second-choice programme for BTh – Bachelor of Theology is DipTh – Diploma in Theology.			
Careers: Ministers, pastors, priests, preachers in certain denominations, missionaries and youth counsellors. Other possibilities include ethics consultants to businesses. Theological studies can be enriching for people in various other vocations. If prospective students are interested in ordained ministry, this should also be discussed with their church leadership.			
DipTh – Diploma in Theology ³ [3 years]	3	E	22
For advice on a second-choice programme, please consult a Student Advisor at +27 (0)12 420 5144.			
Careers: Ministers, pastors, priests, lay preachers in certain denominations, missionaries and youth counsellors. Candidates should consult their church leadership on which course would suit their aims best. The Diploma in Theology is intended for candidates who have completed Grade 12 (or equivalent), but without the required university admission.			



* 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.

Faculty of Natural and Agricultural Sciences

University of Pretoria website www.up.ac.za/nas
National Benchmark Test website www.nbt.ac.za

Programmes	Minimum requirements for 2020						APS
	Achievement level*						
BIOLOGICAL SCIENCES	English Home Language or English First Additional Language		Mathematics		Physical Science		
	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level	
BSc (Biochemistry) ³ [3 years]	5	C	5	C	5	C	

The suggested second-choice programmes for BSc (Biochemistry) are any of these programmes listed in the biological or agricultural and food sciences programmes and BSc (Chemistry).

Careers: Biochemistry offers many opportunities for exciting and challenging careers in the food and pharmaceutical, fine chemicals and waste processing industries. Careers at research councils, such as the Medical Research Council (MRC), the Agricultural Research Council (ARC), the Cancer Association of South Africa (CANSA) and the Water Research Commission (WRC) are possibilities, as are academic institutions, the Council for Scientific and Industrial Research (CSIR), and forensic and pathology laboratories. Career opportunities include those of researcher, teacher, lecturer and medical representative. Graduates are comfortable in work environments such as universities, research institutes, pharmaceutical companies, biotechnology companies and related industries.

BSc (Biological Sciences) ³	5	C	5	C	5	C	32
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The suggested second-choice programmes for BSc (Biological Sciences) are any of these programmes listed in the biological or agricultural and food sciences programmes or BEd (Senior Phase and Further Education and Training Teaching) [Grades 7 to 12] (with elective modules in natural sciences).

This is a generic first year programme in Biological Sciences. Students who are not sure which specialisation degree programme to choose may apply for this programme. Students who intend to apply for admission to MBChB or BChD in the second semester when places become available in those programmes may register for BSc (Biological Sciences) modules in the first semester, replacing Mathematics (WTW 134) with Science and World Views (FIL 155), People and their Environment (MGW 112) and Medical Terminology (MTL 180), with the proviso that these students, should they not be selected and should they wish to continue with one of the Biological Sciences programmes, must complete Mathematics (WTW 134) in the second semester of their first year.

Please note: The minimum admission requirements for MGW 112 is an APS of 34 and a minimum of 70% for Grade 12 Mathematics.

BSc (Biotechnology) ³ [3 years]	5	C	5	C	5	C	32
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The suggested second-choice programme for BSc (Biotechnology) is BSc (Biological Sciences).

Careers: Graduates mostly find work as laboratory-based researchers or bio-entrepreneurs using medical, animal, plant or microbe-based technologies to develop products and services. If students combine biotechnology with additional qualifications such as law, they will be equipped for success in careers such as patent law, pharmaceutical sales and marketing, project management, computer programming (natural computation) and science journalism. Please note that the level of training and qualification plays an important role in determining what type of work a qualified biotechnologist can become involved in.

BSc (Ecology) ³ [3 years]	5	C	5	C	5	C	32
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The suggested second-choice programmes for BSc (Ecology) are any of these programmes listed in the biological or agricultural and food sciences programmes.

Careers: Graduates find work in environmentally-based statutory and private conservation organisations, organisations involved in the direct or indirect use of natural resources, and academic and training institutions.

BSc (Zoology) ³ [3 years]	5	C	5	C	5	C	32
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The suggested second-choice programmes for BSc (Zoology) are any of these programmes listed in the biological or agricultural and food sciences programmes.

Careers: Graduates can look forward to a range of exciting career prospects. They could be employed at nature conservancies, environmental consultancies, and conservation planning agencies, medical and veterinary research institutions, in biochemical and biotechnology industries, at educational institutions, in IT-related fields and in the corporate sector. Career opportunities include all the potential activities involved in modern research, development and training. These range from full-time involvement in the field or laboratory to full-time training activities, and usually include a stimulating combination of analytical work, fieldwork and human resources-related work.

BSc (Entomology) ³ [3 years]	5	C	5	C	5	C	32
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The suggested second-choice programmes for BSc (Entomology) are any of these programmes listed in the biological or agricultural and food sciences programmes.

Careers: Graduates could be employed at nature reserves, environmental consultancies, conservation planning agencies, medical and veterinary research institutions, educational institutions and museums, pest management, quarantine and inspection services, in biochemical and biotechnology industries, in IT-related fields and in the corporate sector. Graduates with expertise in entomology are particularly highly sought-after in the agricultural sector as insect management specialists or researchers.



* 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.



Programmes	Minimum requirements for 2020						APS
BIOLOGICAL SCIENCES	Achievement level*						
	English Home Language or English First Additional Language		Mathematics		Physical Science		
	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level	
BSc (Genetics) ³ BSc (Human Genetics) ³ [3 years]	5	C	5	C	5	C	32

The suggested second-choice programmes for BSc (Genetics) and BSc (Human Genetics) are any of these programmes listed in the biological sciences programmes.

Careers: Graduates generally choose to work as molecular biologists, medical or clinical geneticists, cytogeneticists, biotechnologists, agricultural scientists, molecular ecologists, forensic scientists, genetic counsellors, bioinformaticists and computational analysts, veterinary scientists, teachers or lecturers at various institutions and in bioscience-related industries. If students combine genetics with additional qualifications such as law, they will be equipped for success in careers such as patent law, pharmaceutical sales and marketing, project management, computer programming (natural computation) and science journalism. Note that the level of training and qualification plays an important role in determining what type of work a qualified geneticist can become involved in.

BSc (Human Physiology) ³ BSc (Human Physiology, Genetics and Psychology) ³ [3 years]	5	C	5	C	5	C	32
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The suggested second-choice programmes for BSc (Human Physiology) and BSc (Human Physiology, Genetics and Psychology) are any of these programmes listed in the biological sciences programmes.

Careers: Research is performed in cooperation with medical teams in private and government research laboratories (such as the CSIR and the MRC), the South African Bureau of Standards (SABS), pharmaceutical firms, universities, veterinary and industrial institutions and state departments (for example, the Department of Health). Physiologists are also found in various other fields, such as education (teachers, lecturers and instructors), sport physiology, biostatistics, bioengineering, industrial hygiene, journalism, medical technology and in the industry as representatives of pharmaceutical firms. Graduates with genetics and psychology as subjects also have access to postgraduate programmes offered by the Department of Genetics and the Department of Psychology (in the Faculty of Humanities).

BSc (Medical Sciences) ³ [3 years]	5	C	5	C	5	C	32
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The suggested second-choice programmes for BSc (Medical Sciences) are any of these programmes listed in the biological sciences programmes.

Careers: Postgraduate studies are highly recommended. Honours, master's and doctoral degrees can be obtained in any of the sub disciplines of anatomy: neuro-anatomy, clinical anatomy, cell biology, physical and forensic anthropology, histology and embryology. Students who obtain this degree can also continue with postgraduate studies in Physiology, Genetics and Pharmacology. Career opportunities include research in any of the anatomy sub disciplines, in academia, in forensic sciences and in the health science industry. Other careers that can be considered are in the sport sciences, virology, chemical pathology, immunology, health administration or ergonomics. Technical careers, for example, in the departments of Anatomy or Physiology at universities, are also possible. There are only 72 places in the first year of BSc (Medical Sciences). Students who apply for BSc (Medical Sciences) as their first choice before 30 September and who meet the minimum admission requirements, will be admitted until all the places are full.

BSc (Microbiology) ³ [3 years]	5	C	5	C	5	C	32
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The suggested second-choice programmes for BSc (Microbiology) are any of these programmes listed in the biological or agricultural and food sciences programmes.

Careers: Microbiologists can pursue a variety of careers from practical applications to basic research. Career opportunities are available in the food, dairy, beer, wine and baker's yeast industries, in the fermentation industry, and at mines working with corrosion control. Graduates can also follow careers as medical or veterinary microbiologists, as researchers at organisations such as the CSIR, MRC or ARC, or as lecturers and researchers at various academic institutions.

BSc (Plant Science) ³ [3 years]	5	C	5	C	5	C	32
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The suggested second-choice programmes for BSc (Plant Science) are any of these programmes listed in the biological or agricultural and food sciences programmes.

Careers: Careers range from working in a laboratory to studying plants in their natural environment. Employment could be at biotechnology and pharmaceutical firms, South African National Parks, private ecological companies, and research institutions such as the CSIR, ARC and South African National Biodiversity Institute (SANBI).

Candidates who do not comply with the minimum admission requirements for the above-mentioned Biological Sciences programmes may be considered for admission to the BSc - Extended programme - Biological and Agricultural Sciences. This programme takes a year longer than the normal programmes to complete.

BSc - Extended programme - Biological and Agricultural Sciences ³	4	D	4	D	4	D	26
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Closing dates: 1 SA - 31 May • Non-SA - 31 May 2 SA - 30 June • Non-SA - 30 June 3 SA - 30 September • Non-SA - 31 August
Applications for non-selection programmes will not be considered if admission capacity is reached before the stated closing date.

Programmes	Minimum requirements for 2020						APS
	Achievement level*						
AGRICULTURAL AND FOOD SCIENCES	English Home Language or English First Additional Language		Mathematics		Physical Science		APS
	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level	
BSc (Culinary Science) ³ [4 years]	5	C	5	C	5	C	32
The suggested second-choice programmes for BSc (Culinary Science) are BConSci (Hospitality Management), BSc (Food Science) and BSc (Nutrition).							
Careers: Graduates can be employed as culinary scientists, culinologists, sensory analysts, food researchers, food product developers, food safety and quality assurance managers, and food service managers.							
BSc (Food Science) ³ [3 years]	5	C	5	C	5	C	32
The suggested second-choice programmes for BSc (Food Science) are BSc (Nutrition) and BSc (Biological Sciences).							
Careers: Food scientists with highly marketable training and professional skills work as food risk investigators, quality and safety assurance managers, food chemists, food microbiologists and biotechnologists, packaging and shelf life specialists, safety auditors, product and process development managers, technical sales and marketing advisors, sensory scientists, food bio scientists (for example brew masters or flavourists) in the food, agro processing and related industries. The work environment of food scientists includes laboratories, food production sites, business premises, training areas, retail and wholesale, government institutions and research organisations. Food scientists also work in industries and companies that manufacture and supply materials (for example packaging and food additives, such as colourants and flavourants) for the food industry or that have secondary involvement in food production and sales.							
BSc (Nutrition) ³ [4 years]	5	C	5	C	5	C	32
The suggested second-choice programmes for BSc (Nutrition) are BSc (Food Science), BSc (Biochemistry), BSc (Microbiology) and BSc (Biological Sciences).							
BSc (Nutrition) is an interfaculty degree programme, jointly presented by Food Science (Faculty of Natural and Agricultural Sciences) and Human Nutrition (Faculty of Health Sciences).							
Careers: The need for graduates with training in nutrition is driven by the world-wide recognition that food does not only meet basic nutritional needs, but also plays a key role in the promotion and maintenance of long-term good health. Career opportunities exist in food or related industries (such as pharmaceutical companies), government departments, international organisations (such as the United Nations Food and Agricultural Organisation (FAO) and the World Health Organisation (WHO)) or research organisations, and as account managers and advisors in the food, health and consumer sectors.							
BScAgric (Agricultural Economics and Agribusiness Management) ³ [4 years]	5	C	5	C	5	C	32
The suggested second-choice programme for BScAgric (Agricultural Economics and Agribusiness Management) is BCom (Agribusiness Management).							
Careers: Agricultural economists are involved in many different areas of the economy. Some are involved in analysing and understanding consumers' behaviour in terms of their wants, needs and willingness to pay for food and clothing. Others are involved in environmental management and assisting government and businesses to ensure the sustainable use of scarce resources such as water and arable land. Some agricultural economists are traders on global financial markets and work at the Johannesburg Stock Exchange (JSE) in Sandton or at Wall Street in New York. Others work for banks and in finance, at food processors such as bakers and brewers, or as advisors to farmers and various other agribusinesses. Some agricultural economists work for the government, advising them on how to ensure that there is enough food for all the people in the country, while others work in commercial banks, advising clients and managers how to manage finance, risk and commodity markets. Agricultural economists also play a vital part in research and development in the agricultural sector. Some agricultural economists travel a great deal, both locally and internationally, networking in the global arena. Therefore, an agricultural economist is somebody who is interested in the business and management of agriculture, including people and their cultures as well as nature. An agricultural economist must not only be able to interact with people, but must also be able to use statistics and mathematics to understand the interaction between people, nature and the economy.							
BScAgric (Animal Science) ³ [4 years]	5	C	5	C	5	C	32
The suggested second-choice programmes for BScAgric (Animal Science) are BSc (Biological Sciences) and BSc (Zoology).							
Careers: Animal science is a career that makes an important contribution to agriculture in South Africa. This career is focused on the application of the scientific aspects of animal production and the quality control of products to ensure consumer satisfaction. It is a field of science, subject to the most recent research and needs of both animals and humans, that focuses on the whole animal and wildlife production value chain, from conception to consumption. There are numerous career opportunities for animal and wildlife scientists in research, commercial farming and the public sector, and for professionals in the animal science industry. Animal scientists can work on different levels in these sectors, from researchers to animal nutrition or breeding consultants, technical representatives, managers of intensive and extensive animal production systems, game managers and policy makers. The BScAgric (Animal Science) degree is acknowledged as a professional qualification by SACNSP in terms of Act 106 of 1993, and is recognised internationally, which means that graduates can register as professional animal scientists.							
BScAgric (Plant Pathology) ³ [4 years]	5	C	5	C	5	C	32
The suggested second-choice programmes for BScAgric (Plant Pathology) are any of these programmes listed in the biological or agricultural and food sciences programmes.							
Careers: Graduates could be employed as seed cultivators, farmers, researchers, lecturers or consultants.							
BScAgric (Applied Plant and Soil Sciences) ³ [4 years]	5	C	5	C	5	C	32
The suggested second-choice programmes for BScAgric (Applied Plant and Soil Sciences) are any of these programmes listed in the biological or agricultural and food sciences programmes.							
Careers: Graduates could be employed as teachers and lecturers at schools and academic institutions, as well as researchers and managers at various public and private institutions:							
<ul style="list-style-type: none">▪ Public sector: The ARC, Department of Water and Sanitation, Department of Environmental Affairs, Department of Tourism, Department of Agriculture, Forestry and Fisheries, Department of Mineral Resources, Department of Energy, the CSIR, provincial agriculture and nature conservation departments, SANBI, municipalities, South African National Parks, national farming and food production agencies.▪ Private sector: Companies involved in seed, fertiliser and plant protection research and development, environmental planning and management, nurseries, vegetable, fruit and ornamental cut-flower production and irrigation.▪ Extension services involving knowledge transfer: Nature conservation, national and provincial departments of agriculture and the environment, environmental management and rehabilitation, nurseries, crop, turf grass and weed management, and private companies servicing field crops, vegetables, medicinal and aromatic plants, fruit, ornamental and cut-flower production.▪ Entrepreneurial: Consultants in crop, pasture, vegetable, medicinal and aromatic plants, ornamental and cut flower production systems and landscaping enterprises, managing own farms and nurseries for extensive (field) or intensive (tunnel/greenhouse) production systems involving various crops, and managing companies specialising in irrigation, reclamation and soil conservation.							
Candidates who do not comply with the minimum admission requirements for the above-mentioned Agricultural and Food Sciences programmes may be considered for admission to the BSc – Extended programme – Biological and Agricultural Sciences. This programme takes a year longer than the normal programmes to complete.							
BSc – Extended programme – Biological and Agricultural Sciences ³	4	D	4	D	4	D	26

Programmes	Minimum requirements for 2020				APS
	Achievement level*				
CONSUMER SCIENCE	English Home Language or English First Additional Language		Mathematics		
	NSC/IEB	AS Level	NSC/IEB	AS Level	
BConSci (Clothing Retail Management) ³ [4 years]	5	C	4	D	28
The suggested second-choice programme for BConSci (Clothing Retail Management) is BConSci (Food Retail Management).					
Careers: Graduates can be employed in retail management as brand managers, clothing buyers and planners, fashion designers, fashion marketers, fashion product developers, quality controllers and assurance managers, store managers, image consultants, textile technologists, visual merchandisers, pattern technologists and entrepreneurs.					
BConSci (Food Retail Management) ³ [4 years]	5	C	4	D	28
The suggested second-choice programme for BConSci (Food Retail Management) is BConSci (Hospitality Management).					
Careers: Graduates can be employed as brand managers, sales managers or store managers, food and beverage buyers and planners, food stylists, food journalists, food product marketers, visual merchandisers, consumer consultants and entrepreneurs.					
BConSci (Hospitality Management) ³ [4 years]	5	C	4	D	28
The suggested second-choice programme for BConSci (Hospitality Management) is BConSci (Food Retail Management).					
Careers: Graduates can be employed as food and beverage managers, food service managers, culinary specialists, event coordinators, entrepreneurs, food product and menu developers, food journalists, food safety and quality assurance managers and food stylists.					

Programmes	Minimum requirements for 2020					
	Achievement level*					
	English Home Language or English First Additional Language		Mathematics		Physical Science	
PHYSICAL SCIENCES	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level
BSc (Chemistry) ³ [3 years]	5	C	5	C	5	C
The suggested second-choice programmes for BSc (Chemistry) are BSc (Biochemistry) and the BEd (Senior Phase and Further Education and Training Teaching) [Grades 7 to 12] (with elective modules in natural sciences).						
Careers: Graduates are employed in most technology-based institutions and work in a laboratory environment as part of an industrial, research or academic institution. A chemist must be able to participate in teamwork in a multidisciplinary environment in a wide variety of enterprises in both the private and public sectors. It is important to note that the type of work available to a graduate in chemistry depends on the level of the qualification obtained. Advanced qualifications will eventually lead to positions in research and/or production management and require management skills and financial planning. Many career opportunities are found in the sectors of education, research, journalism, environmental protection, food and beverages, energy, water, health, sport, pharmaceuticals and cosmetics, geology, mining and law enforcement. These include the well-known professions of synthetic chemist, materials scientist, chemical pathologist, forensic chemist, analytical chemist, drug analyst, patent lawyer, environmental chemist, geochemist, food chemist, polymer chemist and soil chemist.						
BSc (Physics) ³ [3 years]	5	C	5	C	5	C
The suggested second-choice programmes for BSc (Physics) are BSc (Mathematics) and BEd (Senior Phase and Further Education and Training Teaching) [Grades 7 to 12] (with elective modules in natural sciences).						
Careers: Graduates could be employed as university academics, whose duties include lecturing, research and the supervision of postgraduate students, researchers in national laboratories such as the Nuclear Energy Corporation of South Africa (NECSA), the South African Astronomical Observatory or iThemba LABS (Laboratory for Accelerator-based Sciences), researchers in industry such as at the CSIR or Element Six, science advisors for non-governmental organisations, industry or government, radiation scientists, medical scientists and biophysicists, atmospheric scientists and climatologists, developers of renewable energy sources, geophysicists, innovators and entrepreneurs, and computational scientists. International collaboration also takes place with experts from abroad.						
BSc (Geography) ³ [3 years]	5	C	5	C	5	C
The suggested second-choice programmes for BSc (Geography) are BSc (Environmental Sciences) and BSc (Meteorology).						
Careers: There are three main career fields in geography: teaching, research and the application of geographical knowledge and skills in practice. Geographers can focus on environmental management, urban issues such as squatting, regional and rural development, or environmental issues, including pollution and the destruction of ecosystems through activities such as mining, agriculture and tourism. Geographers in the private sector are generally employed by real estate, planning, architecture and engineering firms, banks, tourism organisations, environmental conservation bodies and industry. Government departments involved in forestry, water and land affairs, the environment, tourism and education employ geography graduates. Parastatal organisations such as the SABS and the CSIR offer career opportunities in the various specialised fields related to the earth and environmental sciences. Many geographers are self-employed. They are mainly involved in areas such as marketing, planning, development, tourism, cartography, geographic information systems (GIS), remote sensing, environmental analysis and environmental auditing. Graduates can also pursue academic careers.						



* 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.

Programmes	Minimum requirements for 2020						APS
	Achievement level*						
PHYSICAL SCIENCES	English Home Language or English First Additional Language		Mathematics		Physical Science		
	NSC/IEB	AS Level	NSC/IEB	AS Level	NSC/IEB	AS Level	
BSc (Geoinformatics) ³ [3 years]	5	C	5	C	5	C	34

The suggested second-choice programme for BSc (Geoinformatics) is BSc (Geography).

Careers: Graduates are employed, among others, in agriculture, mineral exploration, engineering, forestry, water resource management, weather forecasting, environmental impact assessment (EIA), land-use planning, land development, rural community development, transport planning, tourism, market research, crime prevention, vehicle tracking, cartography, GIS technology, environmental planning and analysis, and disaster and environmental management. Graduates can apply for professional registration as GIS technologists with the South African Geomatics Council (SAGC).

BSc (Geology) ³ [3 years]	5	C	5	C	5	C	34
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The suggested second-choice programmes for BSc (Geology) are BSc (Engineering and Environmental Geology), BSc (Physics) and BScAgric (Applied Plant and Soil Sciences).

Careers: Large international mining companies are major employers of geologists and other geoscientists in research, exploration and mining projects. However, employment is increasingly to be found in smaller, entrepreneurial firms (junior). Interesting careers are also offered by the Council for Geosciences, the CSIR, and the Council for Mineral Technology (MINTeK), the Department of Water and Sanitation, and at museums, engineering firms and consulting companies. Graduates may even operate as self-employed consultants in their own firms. Laboratory specialists like mineralogists identify and examine minerals using sophisticated instruments and analytical equipment. Environmental and engineering 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, in order to provide valuable information prior to construction. They also locate and evaluate suitable construction materials. The task of the hydrogeologist is to look for groundwater and monitor the responsible exploitation of that water.

BSc (Meteorology) ³ [3 years]	5	C	5	C	5	C	34
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The suggested second-choice programme for BSc (Meteorology) is BSc (Geography).

Careers: Meteorologists are employed by institutions involved in the study, interpretation and prediction of weather and phenomena relating to the climate. The South African Weather Service (SAWS), the CSIR, some universities, agricultural institutions and general industries employ meteorologists who mainly practise as specialists in the following areas:

- **Researchers:** They research all aspects of the weather and climate in order to improve understanding of atmospheric phenomena. Atmospheric modellers use supercomputers to solve complex flow dynamic equations of the atmosphere. The monitoring of air quality and the modelling of the impact of air pollution on society are two important aspects that need to be addressed. Research into climate change is receiving increasing attention.
- **Weather forecasters:** It is the duty of the weather forecaster to analyse data and predict the weather by using models that are run on supercomputers. Weather forecasts are issued on different time scales, from very short-range forecasting to forecasts that are valid for months ahead, as well as seasonal forecasts. There are also some private weather forecasting positions, such as presenting the weather on television.
- **Climatologists:** They manage important data sets that contain large volumes of information gathered by the SAWS and other organisations.
- **Consultants:** Some meteorologists who work as consultants in the private sector and at universities provide specialised research services.
- **Lecturers:** A few academic positions are available for meteorologists and climatologists at South African universities. They ensure that the training of meteorologists meets international standards.

BSc (Environmental Sciences) ³ [3 years]	5	C	5	C	5	C	34
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The suggested second-choice programme for BSc (Environmental Sciences) is BSc (Geography).

Careers: Graduates could be employed as environmental consultants, air quality managers, environmental impact analysts, environmental protection agents, hazardous materials specialists, public health educators, researchers, water quality specialists, natural resource managers, risk managers, environmental educators, wetlands scientists, wildlife conservationists, environmental planners and analysts, wastewater treatment experts, programme and project managers, natural resources experts and researchers.

BSc (Engineering and Environmental Geology) ³ [3 years]	5	C	5	C	5	C	34
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The suggested second-choice programme for BSc (Engineering and Environmental Geology) is BSc (Geology).

Careers: Graduates could be employed as geologists, mineralogists, extraction metallurgists, economic geologists, geochemists, environmental and engineering geologists, geohydrologists, laboratory specialists and consultants.

Candidates, who do not comply with the minimum admission requirements for the above-mentioned Physical Sciences programmes, may be considered for admission to the BSc – Extended programme – Physical Sciences. This programme takes a year longer than the normal programmes to complete.

BSc – Extended programme – Physical Sciences ³	4	D	4	D	4	D	28
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Programmes	Minimum requirements for 2020				APS
	Achievement level*				
MATHEMATICAL SCIENCES	English Home Language or English First Additional Language		Mathematics		
	NSC/IEB	AS Level	NSC/IEB	AS Level	
BSc (Actuarial and Financial Mathematics) ³ [3 years]	5	C	7	A	36

The suggested second-choice programme for BSc (Actuarial and Financial Mathematics) is BSc (Mathematical Statistics).

Careers: Actuarial and financial mathematics is a popular field, with career opportunities in the business market and at investment institutions like banks and insurance companies. The skills of mathematicians are essential in portfolio management and the modelling of financial risk. This programme prepares students for professional careers as actuaries or financial engineers. For actuaries or actuarial technicians, activities include long-term capital projects, designing the benefits of medical schemes, the management of pension funds, the determination of contributions and financial management on a sound long-term basis, the evaluation of investments in shares, property and other transactions, and the determination of the premiums and reserves for outstanding claims of insurers. Financial engineers can be employed by banks and financial institutions, brokerage firms and investment institutions. The mathematical skills of financial engineers are essential in portfolio and risk management. Activities include asset management (trading in bonds, futures and derivative instruments such as options), designing new financial products and devising strategies to control credit risk.

Programmes	Minimum requirements for 2020					APS
	Achievement level*					
MATHEMATICAL SCIENCES	English Home Language or English First Additional Language		Mathematics			
	NSC/IEB	AS Level	NSC/IEB	AS Level		
BSc (Mathematics) ³ BSc (Applied Mathematics) ³ [3 years]	5	C	6	B	34	

The suggested second-choice programme for BSc (Mathematics) is BSc (Physics) and for BSc (Applied Mathematics) are BSc (Mathematics) and the BEd (Senior Phase and Further Education and Training Teaching) [Grades 7 to 12] (with elective modules in natural sciences).

Careers: 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.

BSc (Mathematical Statistics) ³ [3 years]	5	C	6	B	34
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The suggested second-choice programmes for BSc (Mathematical Statistics) are BSc (Physics) and the BEd (Senior Phase and Further Education and Training Teaching) [Grades 7 to 12] (with elective modules in natural sciences).

Careers: Statisticians are needed across many professions, such as actuaries, economists, biologists, engineers and marketing executives. Some examples of career opportunities are:

- Google analytics use statistics to track internet users to generate leads for their recommended engines.
- Movement information captured by cell phones is used by statistical predictive models to predict traffic congestion and suggests faster routes.
- Statisticians make use of statistical methodologies to detect fraud, assist with credit-related portfolios and also forecast financial economic trends.
- Retail companies study their customer satisfaction and customer experience using statistical models.
- Spatial statistics can provide useful information about climate changes, crime hot spots and rhino poaching geographical maps.
- Statisticians advise animal scientists on the factors affecting animal nutrition and genetic breeding plans.
- Government employs statisticians to understand how population demographics, health risks and other factors influence sustainable development programmes.

Candidates, who do not comply with the minimum admission requirements for the above-mentioned Mathematical Sciences programmes, 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 ³	4	D	5	C	28
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BSc (Actuarial and Financial Mathematics)

Transfers from the BSc – Extended programme to the BSc (Actuarial and Financial Mathematics) programme will only be considered if students have passed all their first year modules with an average percentage of at least 60%, as well as a minimum percentage of 60% for WTW 143 and WTW 153.

Faculty of Law

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Programmes	Minimum requirements for 2020		
	Achievement level*		APS
	English Home Language or English First Additional Language		
	NSC/IEB	AS Level	
LLB ³ [4 years]	5	C	32**
The suggested second-choice programmes for LLB are BA (Law) and BCom (Law).			
**Candidates who fulfil the requirements for admission will be provisionally accepted on a first come, first served basis until 30 September, subject to the availability of places. However, as applications already open on 1 March and spaces are limited candidates are urged to apply as early as possible in the year.		Queries relating to LLB applications can be directed to: Ms Helen van Tonder (Faculty of Law) Tel +27 (0)12 420 4265 Fax +27 (0)12 420 2090 Email helen.vantonder@up.ac.za	
Careers: Advocates, attorneys, prosecutors, magistrates, legal advisors and academics etc.			
BA (Law) ³ [3 years]	Queries relating to BA (Law) applications can be directed to: Ms Ntsiki Dhlamini (Faculty of Humanities) Tel +27 (0)12 420 5039 Email ntsiki.dhlamini@up.ac.za		
BCom (Law) ³ [3 years]	Queries relating to BCom (Law) applications can be directed to: Ms Ronel Steenkamp (Faculty of Economic and Management Sciences) Tel +27 (0)12 420 3347 Email ronel.steenkamp@up.ac.za		



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University of Pretoria | Universiteit van Pretoria | Yunibesithi ya Pretoria

Private Bag/Privaatsak/Mokotla wa Poso X20

Hatfield 0028, South Africa/Suid-Afrika/Afrika Borwa

Tel +27 (0)12 420 4111, Fax/Faks/Fekse +27 (0)12 420 4555



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