

Faculty of **Science**



UNDERGRADUATE PROGRAMMES

General Information & Admission Requirements

**2024**

# Welcome

The decision you are about to make will have a significant impact on the trajectory of your life path. This is the moment you not only get to decide where you want to study, but most importantly, what you want to study.

Our University is a place that teaches and reflects the values of social justice and equality. It offers what we regard as “an inclusive education”, advancing learning and teaching that will contribute to the improvement of humanity, and which will diminish social exclusion. It is imperative for us to build a university in which all students feel a sense of belonging.

We take particular pride in bearing the iconic name of Nelson Mandela, the late legendary statesman who transformed this country through his unwavering commitment for a more just, healthy and equal society.

As you will see from this guide, Nelson Mandela University offers you an ideal environment and facilities, excellent teaching opportunities, a wide spectrum of beyond-the-classroom activities, and a solid values-driven base on which to pursue your future dreams.

Our main campus in Gqeberha (formerly Port Elizabeth) is situated on an 840-hectare nature reserve, surrounded by some of the most breathtaking, unspoiled beaches within walking distance of four of our campuses. In the Southern Cape lies our George Campus, located at the foot of the majestic Outeniqua Mountain range, surrounded by indigenous forests and pine plantations.

Our academic and professional programmes range from certificate-level through to research doctorates.

Academic programmes are offered in seven faculties:

- Business & Economic Sciences
- Education
- Engineering, the Built Environment & Technology
- Health Sciences
- Humanities
- Law
- Science

Our University's qualifications are recognised and accredited by the relevant professional bodies, locally and, in some cases, internationally.

We seek to help students in becoming well-rounded citizens, socially aware on a global scale, and set on their individual path to make a difference and change the world.

We hope to soon welcome you as part of the Nelson Mandela University family.

**Prof Sibongile Muthwa**  
Vice-Chancellor





# About Nelson Mandela University

Nelson Mandela University is the only university in the world that carries the name of Nelson Rolihlahla Mandela. We are committed to providing a welcoming and inspiring environment that is supportive, innovative, diverse and safe. Our students need to feel they are in a place of learning and discovery, founded on strong, egalitarian values that encourage them to express themselves, stretch themselves, and seek new solutions for a better world.

***The University embraces Nelson Mandela's challenge to be "caring, responsible and innovative", and recognises the importance of continuously growing and adapting in the pursuit of knowledge, emancipation and lifelong learning.***

The university boasts more than a century of experience in quality higher education, research and technological innovation. We unite the best traditions of both the academic and technological worlds – from entrance level (certificate) through to research level (PhD).

- We are the largest higher education institution in the Eastern and Southern Cape;
- Over 31 080 students are enrolled on seven different campuses – six in Nelson Mandela Bay (Gqeberha, formerly Port Elizabeth), and one in George;
- Programmes are housed within seven faculties (Business & Economic Sciences; Education; Engineering, the Built Environment & Technology; Health Sciences; Humanities; Law and Science), and in some cases, programmes are duplicated on more than one campus;
- The university's George Campus is situated at the foot of the Outeniqua Mountains in the picturesque Southern Cape town of George.

With their spectacular natural surroundings – from beaches to mountains to game reserves – Nelson Mandela Bay and George are ideal places to spend your student years, offering all the advantages of city living in a vibrant and multi-cultural environment.

## Student services

A wide range of student services and support facilities are offered on university campuses to assist you in every aspect of student life – from what to study, to finding suitable employment after graduation. The university offers a variety of social and cultural activities, which means you can have fun while you study. There is an extensive range of sport codes, associations, societies, clubs and facilities, allowing you to make new friends, interact with your fellow students and explore subjects of mutual interest.

Below are some of the various services offered to our students:

### • Library and Information Services

Nelson Mandela University has a network of well-stocked libraries, computer laboratories, and student learning centres which enable students to obtain quality information resources and services required to excel in their various academic courses. These centres are located on all campuses and also offer students a quiet space for studying.



### • Student Health Services

Students have access to a comprehensive primary health care service on every campus, and qualified medical personnel to assist with any health matters which may arise. All services are rendered by registered health care professionals e.g. professional nurses, medical doctors and registered counsellors.

### • Emthonjeni Student Wellness

The centre helps students with career choices, job-seeking skills, and any social, personal or academic problems which they may experience while at University. The centre offers advice in areas such as time management, study methods, personal, social and emotional wellness, as well as career planning and employment readiness.



- **Student Development & Governance (SDG)**

This department contributes towards the holistic development of students. The core functions of this department are the training and development of student leadership, the coordination of student life & events, and supporting student governance structures such as the Student Representative Council (SRC), the Student Housing Council; faculty representatives, the Sports Council, Oppidani and Rag. They also provide students with advice on the various student societies which they could join. There are currently 29 societies which students can join and these are categorised as academic, religious, developmental, social responsibility and political.

- **Arts, Culture & Heritage**

Arts, Culture & Heritage focuses on the holistic development of students by creating opportunities for their participation in the arts. Arts and Culture provides an environment in which students can exercise and develop their need for cultural and artistic expression. You are provided with the opportunity to express your talents by joining a wide range of interactive, cultural and active societies. These societies are diverse and vary from performing arts, dancing, music, drama and choirs.

- **Student Representative Council (SRC)**

The SRC is elected annually in a democratic election to represent the interest of students. The SRC is the only body which the university officially recognises as speaking on behalf of the students.

- **Oppidani (day students)**

Students who do not live in a campus residence are known as Oppidani students. All non-residential Nelson Mandela University students are automatically members of the Oppidani House and are known as Oppies. Although Oppies live off campus, participation in non-academic life is encouraged.

- **Societies**

Students can become a member of numerous student-run societies enabling them to have fun with likeminded students while gaining valuable leadership, communication and social skills. There are presently 29 societies active on our various campuses, and these societies are categorised as either academic, religious, developmental, social responsibility or political.





# Madibaz Sport

Madibaz sport offers a wide variety of competitive and recreational sport programmes for students and staff, as well as the wider university community. These programmes provide students with the opportunity to participate in various sport and recreational activities ranging from informal social games, to highly competitive leagues where skills are tested against the best in the province and country. In addition, through the various high performance programmes coordinated by the Madibaz High Performance Complex, the university plays a major role in the process of developing elite and potentially elite players.

Madibaz sport also provides club members with excellent sport facilities, scientific based coaching programmes, which includes organisational and administrative support. Well-equipped health and fitness centres offer professional gym facilities at student prices, and aid in sport performance testing, sport specific training and injury rehabilitation.

**The following sport codes are offered on the various university campuses:**

Athletics • Adventure Sports • Basketball • Chess • Cricket • Cycling • Football • Golf • Hockey • Judo • Karate • Netball • Rugby • Rowing • Squash • Surfing • Swimming • Table Tennis • Tennis • Underwater-hockey • Volleyball • Water polo.



## MADIBAZ

All teams have nicknames, or names by which they are popularly known. Those who work, study and play sport at Nelson Mandela University proudly refer to themselves as Madibaz. In addition to our name, the university also boasts a dolphin mascot, named Diba.

# Admission to Nelson Mandela University

## Overview

- Applications for early admission (excluding MBChB, BPharm & BRad applications) should be submitted by **4 August 2023**. Late applications (excluding MBChB, BPharm & BRad applications) will however be considered after this date, based on academic merit, until **30 September 2023**. Places are limited and it is therefore in your best interest to submit your application early.
- MBChB applications close on **30 June 2023**. Places in the MBChB degree are limited and it is therefore in your best interest to submit your application early.
- Bachelor of Pharmacy (BPharm) and Bachelor of Radiography (Diagnostic) applications close on **30 June 2023**. Places in the Bachelor of Radiography (Diagnostic) & Bachelor of Pharmacy (BPharm) degrees are limited, and it is therefore in your best interest to submit your application early.
- Prospective students must meet the statutory minimum requirements based on the **National Senior Certificate (NSC)**, or equivalent school-leaving certificate for admission to a higher certificate, diploma or degree qualification, in order to be considered.
- Admission to an undergraduate programme will be further determined by an applicant's **Applicant Score (AS)** and subject requirements.
- Submission of a completed application form does not mean that you have been accepted as a student, or that you may register. All prospective students are selected in accordance with the admissions policy of the university, and applicants will be notified of the outcome of their application by the Student Access and Enrolment Office.
- Provisional admission is based on your **Applicant Score (AS)** obtained in your Grade 11 final, or Grade 12 June or Grade 12 September examinations, and meeting the direct subject requirements. However, the final decision is based on your final Grade 12 NSC/IEB exam results.
- Once you've submitted your form, certain qualifications may require you to submit a portfolio of evidence, or attend an interview. Your admission decision will then only be made once one, or all of these additional requirements have been completed.
- In addition to the general university admission requirements, each programme also has its own



specific requirements.

- Applicants with alternate, international or foreign qualifications must satisfy the requirements laid down by the Matriculation Board to qualify for a certificate of exemption for a particular alternate, international or foreign school-leaving qualification. These requirements are contained in Government Gazette No. 31674, 5 December 2008, and can be found on the Universities South Africa (USAF) website [mb.usaf.ac.za/sc-government-gazette-5-december-2008](http://mb.usaf.ac.za/sc-government-gazette-5-december-2008). Applications for such certificates must be made to the Matriculation board directly: [mb.usaf.ac.za](http://mb.usaf.ac.za)
- In the case of applications by candidates who have studied at other higher education institutions accredited by the South African Qualifications Authority (SAQA), the results obtained at such institutions will be considered, together with their academic record and certificate of conduct.
- There are limits to the number of students that can be admitted to each programme.
- **If a programme is full, you may be denied admission even though you meet the minimum requirements.**
- Prospective students who **matriculated prior to 2008** must please contact the university's Student Access & Enrolment Office to determine their admission requirements.
- For more information on the application process please contact **041 504 1111**, or visit our website ([www.mandela.ac.za/Study-at-Mandela](http://www.mandela.ac.za/Study-at-Mandela)) before applying.
- **Please note that admission requirements are subject to change.** Information in this programme guide was correct as at **April 2023**.



# Admission Requirements

## National Senior Certificate (NSC)

- The table below explains what the minimum statutory requirements for each qualification level are (Higher Certificate, Diploma or Degree).
- The university has also set its own additional minimum entry requirements.

Qualification	Minimum statutory entry requirement
<b>Higher Certificate</b>	Pass the NSC, with a minimum of 30% in the language of learning and teaching of the higher education institution, together with any other university requirements.
<b>Diploma</b>	Pass the NSC with a minimum of 30% in the language of learning and teaching of the higher education institution, coupled with an achievement rating of 3 (40–49%) or better in four recognised NSC 20-credit subjects, together with any other university requirements.
<b>Bachelor's Degree</b>	Pass the NSC with a minimum of 30% in the language of learning and teaching of the higher education institution, coupled with an achievement rating of 4 (50–59%) or better in four NSC 20-credit subjects together with any other university requirements.

**Please note** that the achievement of the minimum NSC admission requirements does not necessarily guarantee admission to any programme or field of study at Nelson Mandela University.

## How to calculate your Applicant Score (AS)

- First look-up the **Applicant Score (AS)** for the qualification you are applying for – also note any required subjects.
- Your Applicant Score (AS) will be different if you took Mathematics, Mathematical Literacy or Technical Mathematics at school.
- Your Applicant Score (AS) is calculated using **six** subjects. Please note that Life Orientation (LO) is excluded.
- Write down your Grade 12 subjects and the most recent percentage (%) obtained in each subject (**NO** Gr 12 March results).
- You **MUST** include the results for the following **three fundamental subjects: 1)** Home language; **2)** 1<sup>st</sup> Add. Language; and **3)** Maths; **or** Maths Lit; **or** Technical Maths.
- For applicants with seven Grade 12 NSC/IEB subjects, their AS is calculated by adding the percentages for their six 20-credit subjects (**Note** that the Life Orientation percentage is not included as it is a 10-credit subject). This gives a score out of 600.
- For those applicants taking eight or more subjects, their AS is calculated as follows: add the percentages obtained for the three fundamental subjects (the two languages and Mathematics, Technical Mathematics or Mathematical Literacy), plus the percentage(s) for any subject(s) required by the programme, together with the percentage(s) for the next best / highest subject(s), to a maximum of six subjects.

- In addition, for those applicants from quintile 1 to 3 schools who attain 50% or higher for Life Orientation, 7 additional points are added to their score out of 600 to arrive at their final AS.
- Compare your AS & subject results to the minimum needed for the qualification you want to apply for.
- If your Applicant Score (AS) & subject results are below the minimum required, you will need to consider another qualification for which you do qualify.

*\* All South African **public** ordinary schools are categorised into five groups, called quintiles. Quintile 1 to 3 are non-fee paying schools, while Quintile 4 & 5 are fee paying schools.*

**The table below provides an example of how to calculate the AS for:**

- Applicant 1** who has 7 NSC Grade 12 subjects, who is applying for a programme with Life Science and Physical Science as required subjects; and
- Applicant 2** who is applying for the same programme, but who took 8 subjects in Grade 12.
- Applicant 3** who is applying for the same programme, but who is from a quintile 1, 2 or 3 school.

NSC Subject	Applicant 1		Applicant 2		Applicant 3 from quintile 1 to 3 school	
	% obtained	% used to calculate AS	% obtained	% used to calculate AS	% obtained	% used to calculate AS
isiXhosa (Home Language)	78	78	78	78	78	78
English (1st Additional Language)	60	60	60	60	60	60
Mathematics	65	65	65	65	65	65
Life Science	62	62	62	62	62	62
Physical Science	50	50	50	50	50	50
History	–	–	60	60	–	–
Geography	55	55	55	–	55	55
Life Orientation	88	–	88	–	88	7 LO>50%
<b>APPLICANT SCORE (AS)</b>		<b>370</b>		<b>375</b>		<b>377</b>

# How do you apply?

- Applicants can apply online by logging on to [www.mandela.ac.za/Study-at-Mandela](http://www.mandela.ac.za/Study-at-Mandela)
- Ensure that you meet the minimum **Applicant Score (AS)** and **subject requirements** before submitting your completed online application form and supporting documentation.
- Please note that certain qualifications have additional selection processes, for example a portfolio of evidence, interview or fitness/medical tests.
- **No application fee** is required for South African citizens, but there is an application fee for International Students.
- **Remember** to **include your cell number on your form**, as we will be sending you your application status and other important information via this number (Please do not include +27 or any spacing when you enter your cell number);
- Applications for early admission should be submitted by **04 August 2023**.
- Late applications will still be considered up to **30 September 2023**, but as space is limited we advise applicants to submit/complete their application form before the August closing date.
- MBChB, BPharm and Bachelor of Radiography (Diagnostic) qualifications close earlier (**30 June 2023**) than the dates listed above. Applicants need to consult the student access & enrolment office, website, or faculty to determine annual closing dates. No late applications will be considered after the published closing date.



## Online applications

- To apply online, you will need your **own cell number** and a valid **personal email address** (should you not have an e-mail account, please open one before proceeding with your online application).
- Online application(s) are **divided into two sections** (please ensure you complete both);
- **Section 1** (basic background information) – complete all fields indicated and click apply at the bottom of the page. This does not mean that your application is complete, or that you will be considered for admission yet.
- You will be sent an e-mail to verify your e-mail address first (should you not receive this e-mail, please check your spam mailbox before contacting the University).
- Once verified, another e-mail will be sent with a link to **Section 2**, and will also include your **student number and pin**;
- Click on the link and type in your student number and pin to proceed with your online application;
- Ensure that all fields highlighted in “red” are completed as these fields are compulsory. Fields highlighted in yellow are optional, and those marked in green require no action.
- Include **all your supporting documentation** with your online application as a PDF or JPEG formatted attachment. You can also upload your supporting docs on the admissions dashboard via our website, but only once you have submitted your completed online application.
- At the bottom of the page you will need to click **“Final Submission”** to submit your application.
- No changes can be made after you have submitted your application form. If you need to edit your online application, refer to the online application guideline document for the process you need to follow.
- Should you require support in completing your online application, you may contact our Contact Centre on **041-504 1111**, e-mail: [info@mandela.ac.za](mailto:info@mandela.ac.za) or [onlineapplications@mandela.ac.za](mailto:onlineapplications@mandela.ac.za).





## Important documentation

In order for the university to finalise your application you are requested to submit the following support documentation with your application:

- A certified copy of your **identity document** (ID document compulsory for SA Citizens – your application cannot be processed without a certified copy of your ID. You may also provide your ID number or serial number that appears on your birth certificate should you still be waiting for your ID Document to be issued).
- A certified copy of **your latest school results** (grade 11 final, or grade 12 June/September results, or final school leaving results if you have already completed Gr 12 (e.g. if you are currently

at school and apply in August submit your June results). **No grade 12 March results.**

- **Declaration by your parent / legal guardian / surety form** (downloaded from the university website),
- A certified **copy** of your **parent / legal guardian / surety's identity document**;
- Completed **disability assessments form** (if applicable).
- Full **official academic record(s) and certificate(s) of conduct** from previous higher education institution(s) (if applicable).
- **Copy** of your current **residential / home or postal address**;
- **NB:** Please note that your **student number/identity number** must clearly be indicated on all documentation submitted. Your application form cannot be processed if you do not include all supporting documentation with your application

## National Benchmark Test (NBT)

Generally, most programmes offered at the Nelson Mandela University do not require applicants to write the National Benchmark Test (NBT). However, there are a very small number of qualifications which require NBT results. If under the requirements of the programme you are interested in, states that NBT results are required, please consult the NBT website ([nbt.ac.za](http://nbt.ac.za)) to book a test date. Applicants interested in programmes requiring NBT results are encouraged to book and write these tests as early as possible. A reference letter from the University is not required.

## Extended Curriculum Programmes

The transition from school to university is challenging for most young people. It is, however, even more dramatic for learners who for various reasons, find that they do not meet the minimum admission requirements of the programme of their choice. Nelson Mandela University offers a wide range of extended curriculum programmes that provide such students with the opportunity to enroll for an extended programme in order to obtain the same mainstream qualification at the end of their study career. In practice, it implies that a student will complete a three-year degree or diploma programme in four years. These programmes provide an environment in which academic support and skills development are integrated with regular academic work. Additional support courses and activities in the first two years of the extended programme assist students to adapt to the university's learning environment in order to follow the mainstream courses during the last two years of study.



# International/Foreign/NCV level 4 and senior certificate equivalency conversion table

- South African and International applicants with International, NC(V) level 4 or Foreign School-Leaving certificates, should use the table below to calculate an equivalent Applicant Score (AS) for admission, based on percentages obtained in such certificates.
- Applicants with international or foreign qualifications must also satisfy the requirements laid down by the Matriculation Board to qualify for a certificate of exemption for a particular international or foreign school-leaving qualification. Applications for such certificates must be made to the Matriculation board directly: mb.usaf.ac.za
- Applicants will have to comply with the minimum Applicant Score (AS) set for the UG qualification they wish to apply for, as well as meet any other additional subject requirements directly.
- To calculate your Applicant Score (AS) use the symbols/achievement rating/percentages obtained in your school-leaving examinations in order to convert them to an equivalent achievement standard on the National Senior Certificate (NSC).
- Your AS is calculated using six subjects, which must include the language(s) and subjects required for admission, but excluding LO.

Subject % to use when calculating the Applicant Score*	Senior Cert HG	Senior Cert SG	HIGCSE NSSC HL	IGCSE NSSC OL	O-LEVEL	AS	A-LEVEL	IB HL	IB SL	KCSE	NC(V)4** Fundamental	NC(V)4 Vocational
115							A*, A	7			Use your actual percentage(s) obtained on your statement of results / certificate.	
105							B	6				
95	A		1			A	C	5	7	A+,A		
85	B		2			B	D	4	6	A-		
75	C	A	3	A	A	C	E	3	5	B+		5 (90-100%)
65	D	B		B	B	D		2	4	B, B-		5 (80-89%)
55	E	C	4***	C	C	E		1	3	C+		4 (70-79%)
45	F	D		D	D				2	D		3 (50-69%)
35	FF	E		E	E				1	E		2 (40-49%)
25	G, GG, H	F, FF, G, GG, H		F, G						F, G		1 (0-39%)

- \* It is recommended that the midpoint of the NSC percentage range be used when calculating the AS, as the results of the above qualifications (excluding the NCV Fundamentals) are reported as either a symbol or numeric value. The range of Subject % exceeds the 100% mark to allow for inclusion of the A Level and IB HL as both qualifications are considered to be at a higher level than the NSC.
- \*\* As the Fundamental subjects are considered to be at the same level as the NSC, use the actual percentage obtained for Language and Mathematics/Mathematical Literacy. For the four Vocational Subjects use the values in the relevant column of the table above.
- \*\*\* A symbol 4 obtained for a NSSC Higher Level / HIGCSE subject is regarded as a pass mark in the equivalent Ordinary or IGCSE level subject except for a First Language subject which becomes a 2nd language pass if another language is also passed (From: mb.usaf.ac.za/paragraph-15).

## KEY:

NSC – National Senior Certificate

O-Level – Ordinary level

Senior Cert HG – Senior Certificate Higher Grade

AS – Advanced Subsidiary

Senior Cert SG - Senior Certificate Standard Grade

A-Level – Advanced level

HIGCSE – Higher International Graduate Certificate of Secondary Education

IB HL – International Baccalaureate Schools (Higher Levels)

IGCSE – International Graduate Certificate of Secondary Education

IB SL – International Baccalaureate Schools (Standard Levels)

NSSC HL – Namibian Senior Secondary Certificate Higher Levels

KCSE – Kenyan Certificate of Secondary Education

NSSC OL – Namibian Senior Secondary Certificate Ordinary Levels

NC(V) 4 – National Certificate Vocational Level 4





## Financial facts

- Before registering as a student, you need to determine whether you will have sufficient funds to finance your studies. Costs involved in higher education include enrolment fees, registration and tuition fees, textbooks, stationery, transport, meals, accommodation, materials and laboratory fees, sports equipment and general living expenses.
- Nelson Mandela University offers financial assistance to full-time students in the form of bursaries, merit awards, scholarships and study loans for top academic achievers.
- A number of sport grants are also available for top sports performers and those who show outstanding potential.
- The university also provides financial assistance in collaboration with the **National Student Financial Aid Scheme (NSFAS)** for financially-needy students.
- Admission to the university does not imply that you will be eligible for a loan, scholarship or bursary.
- Applications for NSFAS funding must be made directly on the NSFAS website, or an application form can be obtained from the NYDA offices, and sent directly to the NSFAS office in Cape Town. The closing date for NSFAS funding is advertised on their website. Further information can be obtained from the NSFAS website – [www.nsfas.org.za](http://www.nsfas.org.za) or by calling 086 006 7327.

- Fundi is a private finance company that exclusively focuses on educational finance, assisting people who are not able to pay for their own, or the studies of their dependants, and who do not qualify for the traditional financing through the formal banking sector or government aid schemes. Fundi loans are available for study fees and books, and provide simple repayment options at an affordable interest rate to loan applicants.
- For more information on financial assistance, contact the **Financial Aid Office** on (041) 504 1111, [www.mandela.ac.za/finaid](http://www.mandela.ac.za/finaid) or e-mail: [financialaid@mandela.ac.za](mailto:financialaid@mandela.ac.za).

## Scholar Merit Awards

Scholar Merit Awards are awarded to new first-year undergraduate students who have achieved excellent academic results in their final grade 12 NSC/IEB examinations. Students must have passed Grade 12 not more than 2 years prior to their first year of study. If you passed Gr 12 the year adjacent to your first year of study, then a **Previous Activity Form** should be completed and submitted to Financial Aid office, North Campus before **31 March**. Your registration at this University must also be your first-time registering at a Higher Education institution. The rand value of this award is determined on a sliding scale between a predetermined minimum and maximum value, and is awarded to first-year students who qualify by the Financial Aid Office.

### Your Applicant Score (AS) is calculated as follows:

- For applicants with seven or more Grade 12 subjects, your AS is calculated by adding the percentages for your six best subjects. This gives a score out of 600. Life Orientation (LO) is not included in your AS calculations for applicants from quintiles 4 and 5 schools.
- For those applicants from quintile 1, 2 or 3 school\* who attain 50% or higher for Life Orientation, 7 points may be added to your score out of 600 to arrive at your final AS.

The rand value of each award is determined on a sliding scale of AS scores according to the table below.

Applicant Score (AS)	Amount
Band 1: 500 and above	R 16 500
Band 2: 470 – 499	R 12 500
Band 3: 410 – 469	R 8 500

**Disclaimer:** “The university reserves the right to amend the award values and policy with regards to the bursary, and may in its sole discretion; decide to implement such amendments retrospectively”.

For more information contact the Financial Aid Office on 041 504 1111 or e-mail: [financialaid@mandela.ac.za](mailto:financialaid@mandela.ac.za)

## School Leadership awards

School Leadership Awards are granted to head prefects (Head Boy/Head Girl), or Learner Representative Council President (in cases of no Head Prefects) and who meet the criteria for a Scholar Merit Bursary, qualifies for the School Leadership award of **R4200** in addition to the Scholar Merit Bursary. Documentary proof of your Grade 12 results, including a letter from your school verifying your leadership role must be submitted to the Financial Aid office on North Campus as soon as possible. The last day for submission of these documents is **31 March** annually. Students who were Head Prefects (or Learner Council Presidents) but do not qualify for a Scholar Merit Bursary, nevertheless qualifies for a School Leadership Award of **R4200**.

**Disclaimer:** “The university reserves the right to amend the award value and policy with regards to the bursary, and may in its sole discretion; decide to implement such amendments retrospectively”.



### Student merit bursaries

Returning undergraduate students may qualify for merit bursaries based on their final results in the previous year of study. Students must have passed all their modules at the first attempt. The rand value of which is determined on a sliding scale. These bursaries are available to South African as well as International students. Students must have also achieved a Weighted Average Academic Performance which is determined per faculty, and registered for a minimum relative course weight of at least 0.80 (or 96 credits):

- Faculty of Business and Economic Science – 75%
- Faculty of EBET – 70%
- Faculty of Education – 75%
- Faculty of Health Sciences – 70%
- Faculty of Humanities – 75%
- Faculty of Law – 70%
- Faculty of Science – 70%

**NB:** Exempted courses are not included in the minimum relative weight or credit value for merit award purposes. The value of the bursary is not a fixed amount and is determined in accordance with the available budget. These awards are only for undergraduate studies. Students intending to register for Postgraduate Diplomas or honours studies must apply for those bursaries on the prescribed form before 1 November of the year preceding postgraduate studies.

**Disclaimer:** “The university reserves the right to amend the award values and policy with regards to the bursary, and may in its sole discretion; decide to implement such amendments retrospectively”.

### Sport bursaries

Madibaz Sport offers sport bursaries of varying amounts to sport performers who have demonstrated the ability to play sport at a high level of competition. Bursary application forms can be obtained from Madibaz Sport by e-mail: [madibazsport@mandela.ac.za](mailto:madibazsport@mandela.ac.za) or by calling (041) 504 2165.

**Disclaimer:** “The university reserves the right to amend the award values and policy with regards to the bursary, and may in its sole discretion; decide to implement such amendments retrospectively”.







## Accommodation

### On-campus

The university provides various on-campus accommodation options. These include the residences on the university's Summerstrand and George campuses, and the Student Villages in Summerstrand, which consist of self-catering units for senior students. As accommodation is limited, early application is essential. Prospective students should note that being offered a place in an academic programme does not mean they have also been accepted into an on-campus residence. The closing date for residence applications is: **30 September 2023**. No late applications will be considered. For more information contact: (041) 504 3690/1416 • [resadmissions@mandela.ac.za](mailto:resadmissions@mandela.ac.za) • [www.mandela.ac.za/studenthousing](http://www.mandela.ac.za/studenthousing)

### Off-campus

Some students prefer living off-campus. Off-campus accommodation options include renting flats and houses or boarding at nearby private residences. The university offers a service to assist students in finding suitable off-campus accommodation. For more information on off-campus accommodation please contact (041) 504 2921 or e-mail: [offcampus.accommodation@mandela.ac.za](mailto:offcampus.accommodation@mandela.ac.za)

### Applying for residence accommodation

- Apply online ([studenthousing.mandela.ac.za/Apply-for-admission](http://studenthousing.mandela.ac.za/Apply-for-admission));
- Please note that indicating that you require accommodation does not guarantee placement in any of the university's on-campus accommodation options;
- A selection process has to take place and priority will be given to applicants who have obtained excellent academic results;

- No student will be admitted to residence until she/he has been academically admitted to a university programme, and also before the appropriate fees have been paid;
- Also note that residence accommodation is limited and preference will be given to applications received before the end of September;
- Please submit a residence accommodation form together with proof of your current residential/home or postal address via e-mail ([resadmissions@mandela.ac.za](mailto:resadmissions@mandela.ac.za)), fax (041-504 9765) or post (Residence Accommodation, PO Box 77000, Nelson Mandela University, Gqeberha, 6031).

## International students

Nelson Mandela University's International Office (MIO) provides information and assistance to prospective and current international students. Information on study programmes, fees, accommodation and study permit requirements can be obtained from this office. Please contact them on +27 (0)41 504 2161 or e-mail: [international@mandela.ac.za](mailto:international@mandela.ac.za) or visit their website ([www.mandela.ac.za/international](http://www.mandela.ac.za/international)). **The closing date for applications by international students is 30 September 2023.**



# Universal Accessibility & Disability Services (UADS)

Nelson Mandela University would like to ensure that differently abled students enjoy a successful student experience, thus we strive to ensure that academic concessions, reasonable adjustments for general accessibility, test and examinations and other academic concessions, are made to meet your needs. Services currently available include assistive technologies, dedicated computer spaces equipped with assistive technologies, braille transcription support, adapted transport for those with mobility difficulties, and volunteer buddies amongst other.

As every case needs to be individually assessed, please register your special needs with the university's **Universal Accessibility & Disability Services (UADS)** as soon as possible, preferably the year prior to application and registration. At your first appointment, you will need to provide valid medical documentation and/or assessment reports from appropriate health professionals. The goal of the consultations between students and the **UADS** is to identify the impact of a disability or condition on the students' academic performance and to maximise opportunities for independent participation.

## What can we offer you?

- Support consultation sessions to determine all support required during your academic journey;
- Assessment sessions for the verification of reasonable accommodations/concessions needed.
- Referrals to Emthonjeni – Fountain of Student Wellness for further consultations, when necessary.
- Orientation and information sessions on various services, support, and technologies available;
- Facilitation of support services, such as assistive technology, braille support, orientation and mobility training, access to facilities, academic support concessions, adapted transport, and identifying appropriate student housing spaces according to the disability.

Bursaries for students with disabilities are available, via an online application process, through NSFAS ([www.nsfas.org.za](http://www.nsfas.org.za)). Please contact the **Universal Accessibility & Disability Services (UADS)** on 041 504 2313 or E-mail: [disability@mandela.ac.za](mailto:disability@mandela.ac.za) for further information.

## Co-Curricular Record

While in university, it is important to not only achieve your goals related to your academics, but also to develop yourself in ways that will help you be a potential employee that employers want to hire. You are encouraged to develop yourself in 16 key areas believed to be traits attractive to employers, both locally and globally. Whether it be through campus leadership positions like First Year Success Buddies, BtC, Res Mentors or involvement in experiences like societies or community involvement sites, co-curricular activities provide opportunities in which you can develop these key skills. Additionally, you can receive formal recognition for the learning achieved through these out-of-the classroom activities with the Co-Curricular Record (CCR). The CCR serves as a companion to your Academic Record and formally acknowledges your participation in approved cocurricular activities, including the learning outcomes achieved through participation. It is never too early to start developing yourself for your future career.



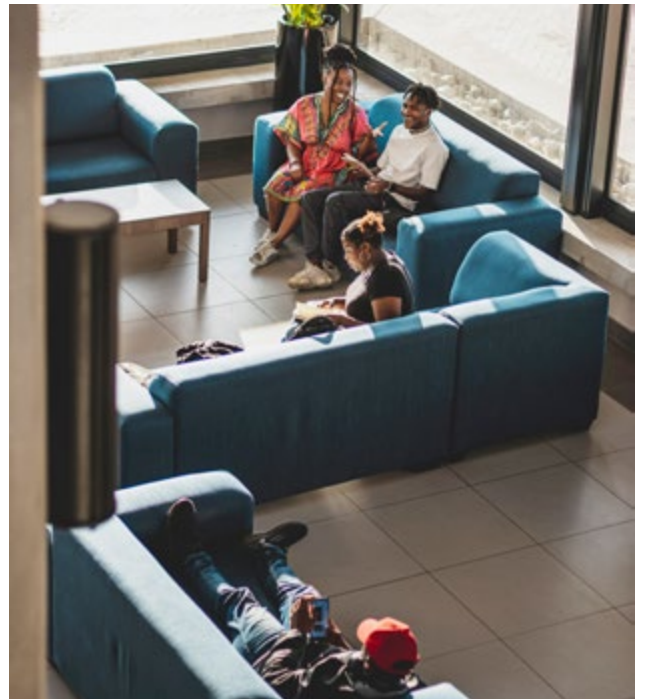
## The University Shop

The University Shop is a project of the Alumni Association and was established as a brand development tool. By wearing Nelson Mandela University branded items, students, staff, alumni, and friends can show their affinity and support for the University. You can visit the one-stop shop for all University branded clothing, bags, folders, and stationery in person, or shop online. For more information contact: 041 – 504 4371, or E-mail: [shop@mandela.ac.za](mailto:shop@mandela.ac.za), or visit their website: [onlineshop.mandela.ac.za](http://onlineshop.mandela.ac.za)

## Language of Teaching and Learning

While Nelson Mandela University is committed to multilingualism, the predominant language of teaching and learning at the University is English. The statutory language requirements can be met by obtaining a minimum rating of 3 (40 - 49%) or higher in English, Afrikaans or isiXhosa as a home or first additional language. Some qualifications may require a higher pass mark for language(s) than what is indicated here. Please refer to the subject requirements of the qualification you intend applying for, before completing your online application form to ensure that you meet the direct admission & subject requirements.





# Faculty of Science



## Student Access & Enrolment Office

Gqeberha (formerly Port Elizabeth) Campuses: 041 504 1111  
George Campus: 044 801 5194

[info@mandela.ac.za](mailto:info@mandela.ac.za)  
[science.mandela.ac.za](http://science.mandela.ac.za)

### Biosciences and Biotechnology Cluster

Department of Biochemistry and Microbiology  
Department of Human Physiology

### Life, Earth, Environmental and Agricultural Sciences Cluster

Department of Agricultural Sciences  
Department of Botany  
Department of Geosciences  
Department of Zoology

### Mathematical and Computational Sciences Cluster

Department of Computing Sciences  
Department of Mathematics  
Department of Statistics

### Physical Sciences Cluster

Department of Chemistry  
Department of Textile Science  
Department of Physics

### Natural Resource Science and Management Cluster

Agricultural Management Department  
Forestry Programme  
Wood Technology Programme  
Veldfire Management Programme  
Conservation Management Department

*Prospective students are advised to contact the Student Access & Enrolment Office prior to applying or to refer to the faculty website or prospectus for more information regarding any qualifications offered within the Faculty of Science.*



Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
Diploma (Dip)							
<b>Dip (Agricultural Management) *</b>  <i>*(also offered on the George Campus)</i>	This diploma course teaches the problem solving and situation analysis skills needed to effectively manage an agricultural enterprise.	Full-time 3 years (including 1 year in-service training)	330	330	345	<ul style="list-style-type: none"><li>Minimum NSC statutory requirements for diploma entry must be met.</li><li>Mathematics or Technical Mathematics – 40%, <b>or</b> Mathematical Literacy – 60%, and <b>one of the following subjects:</b></li><li>Physical Sciences or Technical Science – 40%, <b>or</b> Life Sciences – 50%, <b>or</b> Agricultural Sciences – 55%.</li></ul>	Work opportunities in agricultural management are to be found with cooperatives, chemical companies, on farms (as farm managers), in the civil service and with all companies that provide agricultural products or services.
<b>Dip (Analytical Chemistry)</b>	<p>This programme consists of two years full-time study at Nelson Mandela University, followed by one year of in-service training at a suitable laboratory.</p> <p>The study of Chemistry involves investigation, observation, measurement, critical thinking, problem solving and scientific reasoning. Chemistry being a central science is studied together with other related science disciplines. Practical lab work and theoretical studies form an essential part of chemistry programmes at this university.</p>	Full-time 3 years (including 1 year in-service training)	350	–	–	<ul style="list-style-type: none"><li>Minimum NSC statutory requirements for diploma entry must be met.</li><li>Mathematics – 55%.</li><li>Physical Sciences – 50%.</li></ul>	The work of an analytical chemist or chemical technician differs from one industry to another. It may range from analysing traces of pesticides in milk to determining manganese in steel or checking raw materials used in the making of chocolate. It may also involve checking the purity of solvents used for making paints or analysing pharmaceutical products. You could also, be involved in research or process development or oversee a laboratory.
<b>Dip (Game Ranch Management)</b>	<p>This programme includes thorough training in the fields of game science, game ranch ecology, game ranch management, game health management, soil science, rangeland studies, game utilisation and computer usage.</p> <p>Throughout the programme, compulsory tours and excursions to some of the country's top game parks and reserves as well as to meat processors and exporters are included to ensure that students receive maximum exposure to the game industry.</p>	Full-time 3 years (including 1 year in-service training)	330	330	345	<ul style="list-style-type: none"><li>Minimum NSC statutory requirements for diploma entry must be met.</li><li>Mathematics or Technical Mathematics – 40%, <b>or</b> Mathematical Literacy – 60%.</li></ul>	Game ranchers work mainly on private game ranches, game farms and nature reserves. Opportunities are available to manage ecotourism ventures in national parks, provincial nature conservation departments, services councils and municipalities.

Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>Dip (Game Ranch Management)</b> (continued)	Two years of study are spent at the university, and one year is spent in practice undergoing experiential training.						
<b>Dip (Polymer Technology)</b>	<p>Polymer technology can be described in brief as the manufacture, processing, analysis and application of long chain molecules. Materials that are typically classified as polymers include: plastics, paints, rubber, foams, adhesives, sealants, varnishes etc.</p> <p>The programme includes in-depth training in chemistry, and engineering and manufacturing practices related to the field.</p>	Full-time 3 years (including 1 year in-service training)	350	–	–	<ul style="list-style-type: none"> <li>• Minimum NSC statutory requirements for diploma entry must be met</li> <li>• Mathematics – 55%,</li> <li>• Physical Sciences – 50%.</li> </ul>	Employment opportunities exist in the motor manufacturing and related supply and service industries, such as paint, tyre and plastic-component industries.
<b>Diploma (Chemical Process Technology)</b>	<p>The course is currently the only one of its kind in South Africa. Hands-on practical training includes training in the only working pilot chemical production facility at a South African university which provides for seamless intergradation into a real-life work environment.</p> <p>This qualification comprises a mixture of disciplinary-based courses in chemistry, physics, engineering, statistics, mathematics and computer technology. Apart from the formal course and practical work at the university's modern laboratories and Chemical Pilot Plant, the course also includes a six-month experience-based learning component in an industrial setting where skills and knowledge acquired at university are integrated and applied under real-life working conditions.</p>	Full-time 3 years	350	–	–	<ul style="list-style-type: none"> <li>• Minimum NSC statutory requirements for diploma entry must be met.</li> <li>• Mathematics – 55%.</li> <li>• Physical Sciences – 50%.</li> </ul> <p><b>Please note</b> that due to health and safety reasons, the chemical industry screens prospective employees for a medical history of asthma or lung diseases. Do not consider this qualification if you have had any previous medical illnesses like Asthma or any lung diseases.</p>	Chemical Process Technician. Graduates will be able to find quality employment in a wide variety of industries, nationally and internationally, as this education foundation is designed with industry participation to meet the needs of the chemical and petroleum industry.

1. Applicant Score (AS) for Mathematics: Overall score calculated for applicants who have taken Mathematics;
2. Applicant Score (AS) for Technical Mathematics: Overall score calculated for applicants who have taken Technical Mathematics;
3. Applicant Score (AS) for Mathematical Literacy: Overall score calculated for applicants who have taken Mathematical Literacy.



Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
Advanced Diploma (Adv Dip)							
<b>Advanced Diploma (Analytical Chemistry)</b>	<p>This qualification will equip students to obtain training in the more advanced and specialised field of analytical chemistry, that is related to instrumentation and laboratory organisation.</p> <p>Training will focus on developing skills on certain key instruments that are commonly used in the chemistry related industry.</p> <p>Skills training will relate to equipping the potential analyst with the ability to plan, organize and execute complex analyses on specialised laboratory equipment, followed by the ability to deal with resultant data and the conversion and interpretation of the data to applied knowledge.</p>	Full-time 1 year	–	–	–	<p>Dip (Analytical Chemistry) or BSc degree with chemistry as major or an equivalent qualification with chemistry or analytical chemistry as a major.</p> <p>Applicants should have passed his/her final undergraduate academic chemistry modules with at least 60% average on their first attempt. If the demand for the programme exceeds the allowed capacity, then a competitive entry will be used, based on academic merit. Where the first preference will be given to students with the highest marks from their final year academic chemistry modules.</p> <p>Mature students or those that do not qualify for the programme based on their initial lower entrance requirements can apply if they have worked in a related industry for at least one year after their undergraduate diploma or BSc qualification. Such applicants would then be considered for admission onto this programme by an interview process. The route of entry will be governed by the Nelson Mandela University policy on RPL.</p>	<p>The skills the student will acquire during the qualification will enable them to become more employable in modern analytical laboratories within production and process chemical industries such as the petrochemical, mining, pharmaceutical, rubber/ polymers, cement, catalysis, and government departments.</p> <p>These include amongst others forensics, the water board and university's technical departments. Graduates can further develop their skills by becoming specialists of certain techniques that can then work within the large industrial sector of analytical instrument suppliers or agencies.</p>
<b>Advanced Diploma (Agricultural Management)*</b> <i>*(also offered on the George Campus)</i>	<p>The programme equips students with in-depth knowledge and skills in the fields of animal production, plant production, financial management, leadership development and strategic management.</p>	Full-time 1 year or block release 2 years	–	–	–	<p>A relevant 360-credit Diploma in Agricultural Management or an equivalent qualification. Students will only be able to register for Plant Production 4 (APPN400) if Plant Production 3 (APP3000) or an equivalent module is passed at diploma level. Students will only be able to register for Animal Production 4 (AAPN400) if Animal Production 3 (AAP3000) or an equivalent module is passed at diploma level.</p>	<p>Work opportunities in agricultural management are to be found with cooperatives, chemical companies, on farms (as farm managers), in the civil service and with all companies that provide agricultural products or services.</p>

Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>Advanced Diploma (Game Ranch Management)</b>	The programme includes formal lectures, self-study and applied projects. The programme equips students with in-depth knowledge and skills in the fields of game science, game ranch management, game ranch economics, research methodology and strategic management.	Full-time 1 year or block release 2 years	–	–	–	A relevant 360-credit Diploma in Game Ranch Management or an equivalent qualification.	Game ranchers work mainly on private game ranches, game farms and nature reserves. Opportunities are available to manage eco-tourism ventures in national parks, provincial nature conservation departments, services councils and municipalities.
<b>Bachelor of Science (BSc)</b>							
<b>BSc (Biological Sciences)</b>  • Marine Biology • Conservation biology • Ecology • Environmental management & Coastal zone Management	BSc with majors in Botany and Zoology.	Full-time 3 years	410	–	–	<ul style="list-style-type: none"> <li>• Minimum NSC statutory requirements for degree entry must be met.</li> <li>• Mathematics – 60%.</li> </ul>	Career opportunities exist in the fields of marine biology, conservation biology, ecology, environmental management, and coastal management.
<b>BSc (Biological Sciences)</b> Extended Curriculum	<p>This programme for BSc studies provides alternative university access to students who have the potential to succeed, but do not meet the minimum admission requirements for the mainstream programme.</p> <p>The purpose of the programme is to integrate additional academic support and skills development with mainstream courses in order to prepare the student for successful completion of the BSc degree.</p>	Full-time 4 years	370	–	–	<ul style="list-style-type: none"> <li>• Minimum NSC statutory requirements for degree entry must be met.</li> <li>• Mathematics – 50%.</li> </ul>	<p>The BSc degree should be seen as a stepping-stone which provides a foundation for a career in science.</p> <p>Career opportunities may vary depending in which field you graduate and/or obtain a postgraduate qualification in.</p>

1. Applicant Score (AS) for Mathematics: Overall score calculated for applicants who have taken Mathematics;
2. Applicant Score (AS) for Technical Mathematics: Overall score calculated for applicants who have taken Technical Mathematics;
3. Applicant Score (AS) for Mathematical Literacy: Overall score calculated for applicants who have taken Mathematical Literacy.



Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>BSc (Biochemistry, Chemistry, Microbiology &amp; Physiology)</b>	BSc with two majors chosen from Biochemistry, Chemistry, Microbiology & Physiology.	Full-time 3 years	410	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 60%.</li> </ul>	Career opportunities exist in industry (chemical, food, and biotechnological), teaching, research (medical, agriculture, chemistry, sport, and nutrition).
<b>BSc (Biochemistry, Chemistry, Microbiology &amp; Physiology)</b> Extended Curriculum	<p>This programme for BSc studies provides alternative university access to students who have the potential to succeed, but do not meet the minimum admission requirements for the mainstream programme.</p> <p>The purpose of the programme is to integrate additional academic support and skills development with mainstream courses in order to prepare the student for successful completion of the BSc degree.</p>	Full-time 4 years	370	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 50%.</li> </ul>	<p>The BSc degree should be seen as a stepping-stone which provides a foundation for a career in science.</p> <p>Career opportunities may vary depending in which field you graduate and/or obtain a postgraduate qualification in.</p>
<b>BSc (Environmental Sciences)</b>	BSc with two of the following majors: Geography, Geology, Botany, Zoology or Chemistry.	Full-time 3 years	410	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 60%.</li> </ul>	Various career opportunities exist in mining, water affairs, environmental affairs, as well as in consulting and civil engineering.
<b>BSc (Environmental Sciences)</b> Extended Curriculum	<p>This programme for BSc studies provides alternative university access to students who have the potential to succeed, but do not meet the minimum admission requirements for the mainstream programme.</p> <p>The purpose of the programme is to integrate additional academic support and skills development with mainstream courses in order to prepare the student for successful completion of the BSc degree.</p>	Full-time 4 years	370	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 50%.</li> </ul>	The BSc degree should be seen as a stepping-stone which provides a foundation for a career in science. Career opportunities may vary depending in which field you graduate and/or obtain a postgraduate qualification in.

Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>BSc: Geosciences (Geology &amp; Geography)</b>	BSc with majors in Geography and Geology.	Full-time 3 years	410	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 60%.</li> </ul>	<p>Graduates can follow careers as geographers or geologists.</p> <p>Various career opportunities exist in mining, research and exploration, water affairs, environmental management, as well as in environmental and geo-technical consulting and civil engineering.</p>
<b>BSc: Geosciences (Geology &amp; Geography)</b> Extended Curriculum	<p>This programme for BSc studies provides alternative university access to students who have the potential to succeed, but do not meet the minimum admission requirements for the mainstream programme.</p> <p>The purpose of the programme is to integrate additional academic support and skills development with mainstream courses in order to prepare the student for successful completion of the BSc degree.</p>	Full-time 4 years	370	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 50%.</li> </ul>	The BSc degree should be seen as a stepping-stone which provides a foundation for a career in science. Career opportunities may vary depending in which field you graduate and/or obtain a postgraduate qualification in.
<b>BSc (Computer Science)</b>	BSc with majors in Applied Mathematics, Computer Science, Mathematics and Mathematical Statistics.	Full-time 3 years	410	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 65%.</li> </ul>	Leads to a career in Industrial Mathematics which is the problem driven blend of Mathematics and Statistics that uses mathematical technologies to solve industrial problems. Industrial mathematics is an independent field which studies all mathematical methods that are directly relevant to industry.

1. Applicant Score (AS) for Mathematics: Overall score calculated for applicants who have taken Mathematics;
2. Applicant Score (AS) for Technical Mathematics: Overall score calculated for applicants who have taken Technical Mathematics;
3. Applicant Score (AS) for Mathematical Literacy: Overall score calculated for applicants who have taken Mathematical Literacy.



Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>BSc (Computer Science)</b> (continued)	BSc with majors in Applied Mathematics, Computer Science, Mathematics, and Mathematical Statistics or Physics.	Full-time 3 years	410	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 65%.</li> </ul>	Leads to a career in Computational Physics which is the study and implementation of numerical algorithms in order to solve problems in physics for which a quantitative theory already exists.
	BSc with majors in Applied Mathematics, Mathematics, Mathematical Statistics, Physics and Computer Fundamentals.	Full-time 3 years	410	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 65%.</li> </ul>	<p>This programme provides for a combination of the problem-solving skills and analytical thinking developed through physics and computer science which is an interface between science, technology, engineering, and business.</p> <p>Graduates can enter a variety of careers in business, banking, the government and the military.</p>
	BSc with majors in Applied Mathematics, Computer Science, Mathematics and Physics.	Full-time 3 years	410	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 65%.</li> </ul>	This programme provides a powerful platform for entering a variety of employment opportunities in business.
	BSc with majors in Computer Science, Mathematics and Statistics.	Full-time 3 years	410	–	–	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for degree entry must be met.</li> <li>Mathematics – 65%.</li> </ul>	Career opportunities exist in the field of Data Science, which includes careers such as Business Intelligence Analyst, Data Mining Engineer, Data Architect and Data Scientist.

Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>BSc (Physical Science &amp; Mathematics)</b>	<p>This BSc degree is based on the three cornerstone subjects in Science (Mathematics, Physics and Chemistry) and provides an excellent basis for postgraduate studies in these fields. Furthermore, it offers a sensible subject combination for persons wishing to teach physical science and/or mathematics up to senior secondary level</p> <p>This programme will also launch you into a postgraduate programme at Nelson Mandela University in solid state physics, electron microscopy, crystal growth, optical fibre studies and renewable energy; all with an emphasis on materials development.</p> <p>In addition, the programme provides a platform from which students can enter the field of materials science and engineering.</p> <p>Materials scientists develop and analyze various alloys, ceramics and other novel materials. As such they play an increasingly important role in adding value to the range of minerals mined in South Africa.</p>	Full-time 3 years	410	–	–	<ul style="list-style-type: none"> <li>• Minimum NSC statutory requirements for degree entry must be met.</li> <li>• Mathematics – 65%.</li> </ul>	Researcher, Scientist, Chemist, Mathematician, Physicist, Physical Science and/or Mathematics teacher.

1. Applicant Score (AS) for Mathematics: Overall score calculated for applicants who have taken Mathematics;
2. Applicant Score (AS) for Technical Mathematics: Overall score calculated for applicants who have taken Technical Mathematics;
3. Applicant Score (AS) for Mathematical Literacy: Overall score calculated for applicants who have taken Mathematical Literacy.



# George Campus



## **Faculty of Business & Economic Sciences**

Accounting  
Business Management  
Business Studies  
Economics  
Management  
Marketing  
Tourism Management

## **Faculty of Engineering, the Built Environment & Technology**

Information Technology: User Support Services

## **Faculty of Science: Natural Resource Science and Management Cluster**

Agricultural Management Department  
Forestry Programme  
Wood Technology Programme  
Veldfire Management Programme  
Conservation Management Department

**Student Access & Enrolment Office**  
044 801 5194

george-info@mandela.ac.za  
**georgecampus.mandela.ac.za**

*Prospective students are advised to contact the Student Access & Enrolment Office prior to applying or to refer to the faculty website or prospectus for more information regarding any qualifications being offered on the George Campus.*

## FACULTY OF SCIENCE

Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
Higher Certificate (HCert)							
<b>HCert (Veldfire Management)</b>	<p>This programme is designed to focus on technical as well as strategic and tactical aspects of veldfire management which are critical success factors when it comes to suppressing and preventing veldfires and protecting assets against veldfires.</p> <p>It complements the holistic management of natural resources and provides students with the relevant knowledge, theoretical and practical skills, experience and expertise demanded in the discipline of veldfire management.</p>	Full-time 1 year or Part-time 2 years (if attended on a block release basis).	310	310	325	<ul style="list-style-type: none"><li>Minimum NSC statutory requirements for higher certificate entry must be met.</li><li>Mathematics or Technical Mathematics – 35%, <b>or</b> Mathematical Literacy – 55%.</li></ul>	Students who have completed the programme will be competent to work as veldfire managers in government, municipalities, non-governmental organisations such as fire protection associations, as well as the organised forestry and conservation sector.
Diploma (Dip)							
<b>Dip (Agricultural Management)*</b>  <i>*(also offered in Gqeberha)</i>	<p>This programme consists of two years applied theoretical and one year experiential training. Students gain a sound grounding in animal and plant biology, ecology, financial management, human resource management, marketing, law and computer applications.</p> <p>During experiential training students work with experienced agri-business managers who act as role models and mentors to gain workplace experience and practical skills.</p>	Full-time 3 years (including 1 year in-service training)	330	330	345	<ul style="list-style-type: none"><li>Minimum NSC statutory requirements for diploma entry must be met.</li><li>Mathematics or Technical Mathematics – 40%, <b>or</b> Mathematical Literacy – 60%, <b>and one of the following subjects:</b></li><li>Physical Sciences <b>or</b> Technical Science – 40%, <b>or</b> Life Sciences – 50%, <b>or</b> Agricultural Sciences – 55%.</li><li>Admission is subject to departmental selection.</li></ul>	Work opportunities in agricultural management are to be found with co-operatives, chemical companies, on farms (as farm managers), in the civil service and with all companies that provide agricultural products or services.

Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>Dip (Agricultural Management)</b> Extended Curriculum	<p>This programme consists of three years of applied theoretical and one year experiential training. It provides alternative university access to students who have the potential to succeed, but do not meet the minimum admission requirements for the mainstream programme.</p> <p>The purpose of the programme is to integrate additional academic support and skills development with mainstream courses in order to prepare the student for successful completion of the diploma in Agricultural Management.</p>	Full-time 4 years (including 1 year in-service training)	310	310	325	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for diploma entry must be met.</li> <li>Mathematics or Technical Mathematics – 35%, <b>or</b> Mathematical Literacy – 55%, <b>and one of the following subjects:</b></li> <li>Physical Sciences or Technical Science – 35%, <b>or</b> Life Sciences – 45%, <b>or</b> Agricultural Sciences – 50%.</li> <li>Admission is subject to departmental selection.</li> </ul>	The same as for three-year Diploma in a chosen field.
<b>Dip (Forestry)</b>	<p>This programme consists of two years applied theoretical and one year experiential training. Students gain a sound grounding in all aspects pertaining to sustainable forest management, such as silviculture, forest management, forest engineering, cost &amp; management accounting, economics and environmental management.</p> <p>This foundation enables students to work in any field related to the global forestry industry. During experiential training, students work at an appropriate site in the industry with experienced foresters and/or forestry contractors acting as role models and mentors.</p> <p>Students gain invaluable technical experience, expanded work perspective and ingrained work ethics.</p>	Full-time 3 years (including 1 year in-service training)	330	330	345	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for diploma entry must be met.</li> <li>Mathematics or Technical Mathematics – 40%, <b>or</b> Mathematical Literacy – 60%.</li> </ul>	Career opportunities exist at private and public forestry companies, pulpwood and mining timber growers, municipalities and other local authorities

1. Applicant Score (AS) for Mathematics: Overall score calculated for applicants who have taken Mathematics;  
2. Applicant Score (AS) for Technical Mathematics: Overall score calculated for applicants who have taken Technical Mathematics;  
3. Applicant Score (AS) for Mathematical Literacy: Overall score calculated for applicants who have taken Mathematical Literacy.



Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>Dip (Forestry)</b> Extended Curriculum	<p>This programme consists of three years of applied theoretical and one year experiential training. It provides alternative university access to students who have the potential to succeed, but do not meet the minimum admission requirements for the mainstream programme.</p> <p>The purpose of the programme is to integrate additional academic support and skills development with mainstream courses in order to prepare the student for successful completion of the diploma in Forestry.</p>	Full-time 4 years (including 1 year in-service training)	310	310	325	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for diploma entry must be met.</li> <li>Mathematics or Technical Mathematics – 35%, <b>or</b> Mathematical Literacy – 55%.</li> </ul>	The same as for three-year Diploma in a chosen field.
<b>Dip (Nature Conservation)</b>	<p>This programme consists of two years theoretical and one year experiential training. During theoretical training students gain a sound grounding in animal and plant biology, ecology and resource management of South African ecosystems.</p> <p>The increasing need for community programmes such as community conservation and environmental education are also covered. Weekly practical excursions supplement the theory. During experiential training students work with experienced conservators who act as role models and mentors. In this manner the student gains an expanded work perspective and an ingrained work ethic.</p>	Full-time 3 years (including 1 year in-service training)	330	330	345	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for diploma entry must be met.</li> <li>Mathematics or Technical Mathematics – 40%, <b>or</b> Mathematical Literacy – 60%, <b>and one of the following subjects:</b></li> <li>Physical Sciences or Technical Science – 40%, <b>or</b> Life Sciences – 50%.</li> <li>Admission is subject to departmental selection.</li> </ul>	Nature conservators and game conservators find career opportunities in extension work, conservation management on nature and game reserves and estates, parks, boards, provincial nature conservation departments, private nature reserves and regional services and councils, municipalities and forestry companies.

Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>Dip (Wood Technology)</b>	This programme consists of two years theoretical and one year experiential training offered on campus and at an approved wood processing facility. The programme covers the whole spectrum of subjects related to the working industrial environment. The subjects are packed with new and relevant information as the industry grows. Class time is also interrupted with visits to primary and secondary wood processing plants to expose students to working environments and new technology.	Full-time 3 years (including 1 year in-service training)	330	330	345	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for diploma entry must be met.</li> <li>Mathematics or Technical Mathematics – 40%, <b>or</b> Mathematical Literacy – 60%, <b>and</b></li> <li>Physical Sciences <b>or</b> Technical Science – 40%.</li> </ul> <p><b>Please note</b> that If an applicant has <i>Mathematical Literacy</i> instead of <i>Mathematics</i>, he/she will be placed in an associated extended qualification.</p>	Main employers are the softwood and hardwood sawmill companies, mining timber mills, fibre and particle board mills, timber preservation plants, rooftruss manufacturers, secondary timber product manufacturers, the furniture industry, SABS, CSIR and various machine manufacturers. Wood technologists' work relates to production, management, training, marketing and research.
<b>Dip (Wood Technology)</b> Extended Curriculum	<p>This programme consists of three years of applied theoretical and one year experiential training. It provides alternative university access to students who have the potential to succeed, but do not meet the minimum admission requirements for the mainstream programme.</p> <p>The purpose of the programme is to integrate additional academic support and skills development with mainstream courses in order to prepare the student for successful completion of the diploma in Wood Technology.</p>	Full-time 4 years (including 1 year in-service training)	310	310	325	<ul style="list-style-type: none"> <li>Minimum NSC statutory requirements for diploma entry must be met.</li> <li>Mathematics or Technical Mathematics – 35%, <b>or</b> Mathematical Literacy – 55%, <b>and</b></li> <li>Physical Sciences or Technical Science – 30%.</li> </ul> <p><b>RECOMMENDED NSC/IEB SUBJECTS:</b> Engineering Graphics and Design</p>	The same as for three-year Diploma in a chosen field.
<b>Advanced Diploma (Adv Dip)</b>							
<b>Advanced Diploma (Agricultural Management)*</b>  <i>*(also offered in Gqeberha).</i>	The programme equips students with in-depth knowledge and skills in the fields of animal production, plant production, financial management, leadership development and strategic management.	Full-time 1 year	–	–	–	A relevant 360-credit Diploma in Agricultural Management or an equivalent qualification. Although not a requirement, it is regarded as desirable that an applicant has completed at least two years' applicable practical service after having graduated. Candidates will only be considered if their average pass mark for the diploma is at least 60%.	Work opportunities in agricultural management are to be found with cooperatives, chemical companies, on farms (as farm managers), in the civil service and with all companies that provide agricultural products or services.

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Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>Advanced Diploma (Wood Technology)</b>	This programme equips diplomates with skills and knowledge in the fields of timber processing, seasoning and structures, panel board production, human resource management and environmental management, applied biometry and production engineering (industrial).	Full-time 1 year Part-time 2 years	–	–	–	A relevant 360-credit Diploma in Wood Technology or an equivalent qualification. Although not a requirement, it is regarded as desirable that an applicant has completed at least two years' applicable practical service after having graduated. Candidates will only be considered if their average pass mark for the diploma is at least 60%.	Main employers are the softwood and hardwood sawmill companies, mining timber mills, fibre and particle board mills, timber preservation plants, roof-truss manufacturers, secondary timber product manufacturers, the furniture industry, SABS, CSIR and various machine manufacturers. Wood technologists' work relates to production, management, training, marketing and research.
<b>Advanced Diploma (Forestry)</b>	This programme provides students with an in-depth knowledge of various aspects in the field of Forestry, including silviculture, management, engineering, biometry, fire ecology, human resource management, woodland management, community forestry, business management and environmental management.	Full-time 1 year Part-time 2 years	–	–	–	<p>A relevant 360-credit Diploma in Forestry or an equivalent qualification. Although not a requirement, it is regarded as desirable that an applicant has completed at least two years' applicable practical service after having graduated. Candidates will only be considered if their average pass mark for the diploma is at least 60% and has been completed in one academic year.</p> <p>Prospective students who have not completed modules in Forest Management, Forest Engineering, Silviculture, Forest Economics and Utilisation on a third-year level of study, with a specific focus on the commercial plantation forestry sector, who apply for admission to the full-time Advanced Diploma in Forestry Programme, will be required first to do the third (final) year of the Diploma in Forestry offered by Nelson Mandela University and pass with a 60% average.</p>	Career opportunities exist at private and public forestry companies, pulpwood and mining timber growers, municipalities and other local authorities.



Qualification	Programme Overview	Delivery mode & duration of study	Minimum Admission Requirements				Career Opportunities
			AS for Maths	AS for Technical Maths	AS for Maths Literacy	Subject Requirements	
<b>Advanced Diploma (Forestry)</b> <i>(continued)</i>						<p>Failing to maintain a 60% average will mean that students will only be considered for the Advanced Diploma in Forestry Programme after completing at least two years of service as a forest manager on a commercial plantation.</p> <p>Prospective students will not be allowed to register for any Advanced Diploma modules during this year and all 3rd-year subjects must be completed successfully before a student can commence to the Advanced Diploma Programme. These students will be registered as occasional students and will not be awarded the Nelson Mandela University Diploma in Forestry</p>	
<b>Advanced Diploma (Nature Conservation)</b>	This course aims to prepare students to be conservation managers and field ecologists with advanced knowledge and skills in conservation biology, wildlife ecology, plant ecology, resource management and community engagement.	Full-time 1 year	–	–	–	<p>A relevant 360-credit Diploma in Nature Conservation or an equivalent qualification (e.g., Diploma in Game Ranch Management or Diploma in Wildlife Management). Candidates with a cognate qualification in the fields of ecology and natural resource management (e.g., BSc with majors Botany, Zoology or Ecology) can horizontally apply for this advanced diploma. The minimum entry requirement for the Advanced Diploma is a 60% average for the Diploma, or 60% average for majors in the case of cognate qualifications like a BSc.</p>	Nature conservators find career opportunities in extension work, conservation management on nature and game reserves and estates, parks, boards, provincial nature conservation departments, private nature reserves and regional services and councils, municipalities and forestry companies.

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# Contact Details

	Gqeberha Campuses	George Campus
<b>General Enquiries</b>	041 504 1111	044 801 5111/5999
<b>Student Access &amp; Enrolment Office</b>	041 504 1111/4993/4811/1504/1018	044 801 5194
<b>Library and Information Services</b>	041 504 2294/2298/3410/3851/1269	044 801 5151/5152
<b>Financial Aid</b>	041 504 1111/9971/9926/1242/3096	044 801 6136
<b>Emthonjeni Student Wellness</b>	041 504 2511/ 3222/ 3854 /1106	044 801 5047
<b>Student Housing</b>	041 1415/1416/3690 (On-Campus)	044 801 5034/6136 (On-campus)
	041 504 2921 (Off-campus)	044 801 5139 (Off-campus)
<b>Student societies and clubs</b>	041 504 3229/3351/3894/1235	044 801 5029
<b>Madibaz Sport</b>	041 504 2165	044 801 5037
<b>Student Health Services</b>	041 504 2174/1149/3762/1373	044 801 5062
<b>Universal Accessibility &amp; Disability Services (UADS)</b>	041 504 2313	044 801 5041
<b>Mandela International Office</b>	041 504 2161	

## Address of the University Student Access & Enrolment Office

PO Box 77000  
Nelson Mandela University  
GQEBERHA  
6031

**E** [admissions@mandela.ac.za](mailto:admissions@mandela.ac.za) or [info@mandela.ac.za](mailto:info@mandela.ac.za)

**W** [mandela.ac.za](http://mandela.ac.za)



## Address of the George Campus

Nelson Mandela University  
George Campus  
Private Bag X 6531  
GEORGE  
6530

**E** [george-info@mandela.ac.za](mailto:george-info@mandela.ac.za)

**W** [georgecampus.mandela.ac.za](http://georgecampus.mandela.ac.za)

# Our Vision

To be a dynamic African university, recognised for its leadership in generating cutting-edge knowledge for a sustainable future.

# Our Mission

To offer a diverse range of life-changing educational experiences for a better world.

**To achieve our vision and mission, we will ensure that:**

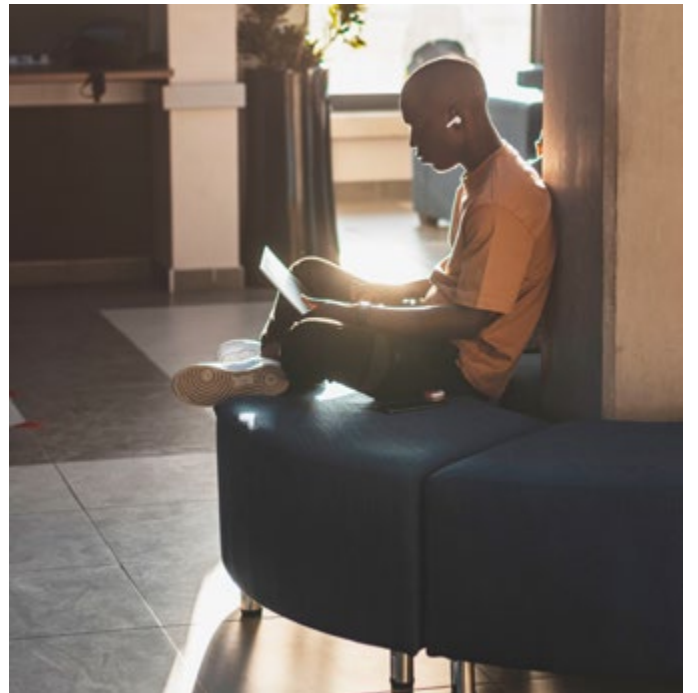
- Our values inform and define our institutional ethos and distinctive educational purpose and philosophy.
- We are committed to promoting equity of access and opportunities so as to give students the best chance of success in their pursuit of lifelong learning and diverse educational goals.
- We provide a vibrant, stimulating and richly diverse environment that enables staff and students to reach their full potential.
- We develop graduates and diplomates to be responsible global citizens capable of critical reasoning, innovation, and adaptability.
- We create and sustain an environment that encourages and supports a vibrant research, scholarship and innovation culture.
- We engage in mutually beneficial partnerships locally, nationally and globally to enhance social, economic, and ecological sustainability.

# Our Values



**Disclaimer:** All reasonable steps have been taken to ensure that the information contained in this guide was correct at the date of publication. All information listed is subject to change and may be updated without prior notification. Nelson Mandela University reserves the right to make changes to the programme details, rules, admission requirements, duration and delivery of courses as published in this guide. Prospective applicants are advised to consult the Student Access & Enrolment Office, the University website or relevant faculties prior to applying.









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