

Career Information

Bachelor of Applied Science in Biotechnology

Location

Steve Biko Campus (S9, Level 1)

Description of the Programme

Biotechnology is the application of living organisms or the individual cellular components of these organisms for commercial purposes or environmental control. A person working in the field of biotechnology will have to have a working knowledge of such disciplines as biochemistry, microbiology, bioprocess engineering, genetics, molecular biology and mathematics.

The degree prepares applicants with focused knowledge, practical skills, attitudes and values necessary for the technological application of biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use in the biotechnology workplace whilst contributing to environmental sustainability.

The undergraduate courses are designed such that graduates are well equipped to venture into industry upon completion of the first three years.

Purpose of Programme: Persons achieving this qualification will be competent to apply theoretical and practical fundamental knowledge and skills in the fields of biotechnology, microbiology and biochemistry to the relevant biotechnology industries and research institutions. Graduates may apply for registration with the South African Council for Natural Scientific Professions as Certified Natural Scientists.

Career Opportunities

Graduates may seek employment in industrial and research laboratories such as Drug and pharmaceutical research, public funded laboratories, chemicals, environmental control, water and waste management, energy, food processing and bioprocessing industries.

Explanation of Points Scale:

Symbol	Senior Certificate	
	Higher Grade	Standard Grade
A	8	6
B	7	5
C	6	4
D	5	3
E	4	2
F	3	1

%	NSC Level	Points
90-100	7	8
80-89%	7	7
70-79%	6	6
60-69%	5	5
50-59%	4	4
40-49%	3	3
30-39%	2	2
20-29%	1	1

Entry Requirements

DEPARTMENTAL NSC REQUIREMENTS		DEPARTMENTAL SENIOR CERTIFICATE REQUIREMENTS		
NSC Degree Entry with 28 points or more (excluding Life Orientation) will be considered		A Senior Certificate with Matriculation Exemption or equivalent qualification Applicants with 30 or more points will be considered.		
Compulsory Subjects	NSC Rating Code	Compulsory Subjects	HG	SG
English (home) OR English (1st additional)	4 4	English	D	B
Mathematics	4	Mathematics	D	B
Physical Science	4	Physical Science	D	B
Life Sciences	4	Biology	D	B

OR

NCV Entry Requirements:

2 Fundamental subjects and English and Maths at level 4 (60%) and one other subject at 60%

And 2 compulsory vocational subjects, Physical Science (or equivalent), Life Sciences (or equivalent) at 70% and one other subject at 70%.

OR

Admission Requirement based upon Work Experience, Age and Maturity

For admission to entry level degree studies:

A person may, subject to such requirements as the Senate may determine, be admitted if such a person is in possession of a National Senior Certificate, Senior Certificate or an equivalent certificate, but lacks the minimum requirements for admission to the degree provided that:

- (a) The person shall have reached the age of 23 in the first year of registration and shall have at least:
- three years' appropriate work experience; and/or
 - capacity for the proposed instructional programme, which shall be assessed by a Senate-approved admission assessment comprising of a DUT Standardised Assessment Test for Access

and Placement (SATAP), Academic Literacies (AL) & English for Academic Purposes (EAP) (2,5 hours) and/or an appropriate subject or programme specific written assessment designed and marked by the relevant Department; and the person has obtained

- (b) A conditional certificate of exemption from the Matriculation Board (when in possession of the Senior Certificate (SC)); OR has met
- (c) The requirements for Senate discretionary admission (when in possession of the NSC or equivalent), where Senate is satisfied the applicant has shown sufficient academic ability to ensure success, and that the person's standard of communication skills, and/or work experience are such that the person, in the opinion of the Senate, should be able to complete the proposed instructional programme successfully.
- (d) The person's application for admission in terms of with work experience, age and maturity is approved prior to registration.

Applicants intending to gain admission through work experience, age and maturity must submit their applications at least four months before commencement of the academic year inclusive of the date of scheduling writing a requisite eligibility assessment.

Tuition Fees

To assist you with your planning, the 2019 fees have been indicated.

PLEASE NOTE: DUT cannot be held liable for the fees in this brochure as the 2020 fees are not yet final.

First Year Curriculum:

Semester One

Chemistry I
Biology I
Mathematics
Cornerstone 101

Total

2019 Fees

R4 220
R4 220
R2 950
R2 950

R14 340

Semester Two

Bacteriology 2
Biochemistry 2
Physics
Mycology
Institutional General Education Elective I (IGE I)

Total

R4 220
R4 220
R2 950
R2 950
R1 710

R16 050

Second Year Curriculum

Semester Three

Food Microbiology 2 R4 220
Microbial Biochemistry 3 R4 220
Virology and Immunology 2 R4 220
Fermentation Science and Technology 2 R4 220
Institutional General Education Elective 2 (IGE 2) R1 710
Total **R18 590**

Semester Four

Analytical Biochemistry 3 R4 220
Molecular Biology 3 R4 220
Bacteriology 3 R4 220
Faculty General Education Elective (FGE 1) R2 730
Total **R15 390**

Third Year Curriculum

Semester Five

Industrial Biotechnology 3 R4 220
Recombinant DNA Technology 3 R4 220
Plant Biotechnology R1 900
Medical Biotechnology 3 R1 900
Research Project 1 R2 110
Faculty General Education Elective (FGE 2) R2 730
Total **R17 080**

Semester Six

Research Project 2 R4 220
Food Biotechnology R2 950
Bioremediation R4 220
Industry Management R2 110
Institutional General Education Elective 3 (IGE 3) R1 710
Total **R15 100**

FOR FURTHER INFORMATION

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APPLICATION FORMS

Contact the Central Applications Office (C.A.O)
CAO Code: DU-D-BBT
Address letters to:
Central Applications Office
Private Bag X06
Dalbridge
4014
Tel: (031) 2684444
Fax: (031) 2684422
Apply online: <http://www.cao.ac.za>

Closing Date for applications: 30 September 2019

Financial Aid

For Financial Aid application for a DUT programme please apply online at www.nsfas.org.za or call the NSFAS call centre on 0860 067 327.

For an explanation on how to fill out the application form, please go to www.nsfas.org.za or contact the call centre on the number above.

Please note that completing a form does not guarantee Financial Aid. For further assistance, please consult the Department of Financial Aid and Scholarships on (031)373 2931/2557/2054.



CAREER INFORMATION

BACHELOR OF
APPLIED SCIENCES IN
BIOTECHNOLOGY

1 JANUARY - 31 DECEMBER

2020