



Biotechnology

Job Opportunities:

Biotechnologist or microbiologist in industrial biotechnology, environmental biotechnology, plant biotechnology, medical biotechnology and related fields.

Job Description:

Research and development, improvement of existing industrial processes, marketing, management, production, own business.

Qualification Structure:

Basic qualifications are offered within a single three year qualification structure to obtain a National Diploma. The B Tech degree is offered full time over 1 year or part-time over 2 years. Post graduate qualifications on a Masters as well as a Doctorate level are also available.

Academic Enquiries:

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NATIONAL DIPLOMA: BIOTECHNOLOGY

Course Code: NDBT03

Remarks

a. Admission requirements:

The following are the minimum academic requirements to enroll for the National Diploma programme. In addition to the senior certificate - general and vocational certificate a candidate must adhere to the specific requirements for the programme.

Specific requirements are:

Adequate achievement (i.e. a rating of 4 or more) in English, Mathematics and Physical Science.

Recommended subject is:

- Life Sciences

Recognised subject is:

- Information Technology

b. Evaluation:

Admission is subject to evaluation, and applicants will have to sit for a potential assessment test. Based on the results they obtain, they will either be admitted directly to the National Diploma or to a foundation programme determined by the Department. The latter would result in an extension of the minimum period of study. Prospective students currently in Grade 12 will be provisionally selected according to their Grade 11 results.

Selection for the fourth year (B Tech degree) only: A personal interview with a departmental evaluation panel is required.

c. Duration:

The first three years (National Diploma) consist of four semesters of full-time formal training and two semesters of experiential learning. The B Tech (fourth academic year) will be offered full time (over 1 year), however, there is still the option to study part time over 2 years (block week basis).

NATIONAL DIPLOMA: BIOTECHNOLOGY

FIRST YEAR

First Semester

SSH101T Sanitation, Safety and Hygiene I

CAL101T Calculations and Statistics

CHE141C Chemistry IB

PHU161C Physics IB

Second Semester

MBI101T Microbiology I

PTM101T Process Technology and Management I

PTM10XT Process Technology and Management: Theory I

PTM10YT Process Technology and Management:
Computer Skills I

BCH221T Biochemistry II

ACI201T Analytical Chemistry: Biological II

SECOND YEAR

First Semester

FMT201T Fermentation Technology II

MBI241T Microbiology II

MBB301T Microbial Biochemistry III

DIR201T Disease and Immune Response II

Second Semester

MBG301T Microbiology: Biological III

FMB311T Food Microbiology III

BPS301T Bioprocessing III

ALB301T Analytical Biochemistry III

THIRD YEAR

First or Second Semester

EXP1BIO Experiential Learning I

EXP2BIO Experiential Learning II



BACCALAUREUS TECHNOLOGIAE: BIOTECHNOLOGY

Qualification code: BTBT01

**SUBJECTS PRINTED IN BOLD ARE NOT FOR
REGISTRATION PURPOSES**

FIRST YEAR

Subjects are offered in semesters, as determined by the Department.

First Semester

CODE	SUBJECT CREDIT
EMB401T	Environmental Biotechnology IV
EPS101T	Entrepreneurial Skills
RSP401T	Research Project IV (offered in both semesters)
RSP401R	Research Project IV (re-registration)
IBI401T	Industrial Biotechnology IV
MBT401T	Medical Biotechnology IV

Second Semester

RDT 401 T	Recombinant DNA Technology
RMN201B	Research Methodology: Natural Sciences
RMN20XB	Research Methodology: Natural Sciences: Biotechnology
RMN20YB	Research Methodology: Natural Sciences: Statistics

MAGISTER TECHNOLOGIAE: BIOTECHNOLOGY

Qualification code: MTBT96

CODE	SUBJECT CREDIT
BTY500T	Dissertation: Biotechnology
BTY500R	Dissertation: Biotechnology (re-registration)

DOCTOR TECHNOLOGIAE: BIOTECHNOLOGY

Qualification code: DTBT96

CODE	SUBJECT CREDIT
BTY700T	Thesis: Biotechnology
BTY700R	Thesis: Biotechnology (re-registration)

All information is subject to change
(Revised 12/04/2010)

*Live your life.
Create your destiny.*

diversity
ethics
relevance
entrepreneurship
quality
care
partnerships
professionalism



Faculty of Science

Department of Biotechnology