

BIOTECHNOLOGY

BIOTEGNOLOGIE

CAREER INFORMATION

The biotechnologist or microbiologist is an innovative and confident person with an analytical mind. You will cultivate and identify various micro-organisms, study the appearance and activities of harmful and beneficial organisms in various industries and learn to manipulate micro-organisms to the benefit of man.

Diagnostics (termination of a disease through your knowledge) will form part of your work in the following disciplines:

Chemical pathology – The medical science and speciality practice concerned with all aspects of disease, but with special reference to the essential nature, causes and development of abnormal conditions as well as the structure and functional changes that result from the disease processes.

Cytology – The study of chemistry of the cell, the anatomy, physiology and pathology.

Hystopathology – The science or study dealing with the cyto-logic and hystologic structure of abnormal tissue.

Haematology – The medical speciality field related to the blood and blood forming tissues.

Microbiology – The science concerned with microscopic and ultra microscopic organisms.

SCHOOL SUBJECTS

Mathematics, Science, English and Biology at HG.

ADMISSION REQUIREMENTS

Each institution has its own entrance requirements.

EXPERIENTIAL TRAINING

One year experiential training at a training laboratory.

QUALIFICATIONS UNIVERSITIES

BSc (Biotechnology) BSc Honours
MSc PhD

CAREER OPPORTUNITIES

Lab technician, quality assurance in food industry, academic, forensic scientist – human identification, researcher (Plant biotechnology, food microbiology, cancer, medical research, structural biology, genetics, forensics, environmental and applied microbiology), biotechnologist and medical sales rep.

QUALIFICATIONS UNIVERSITIES OF TECHNOLOGY

NDip: Biotechnology BTech: Biotechnology
MTech: Biotechnology DTech: Biotechnology

CAREER OPPORTUNITIES

After completion of the National Diploma, you will qualify to apply for a position in industries and institutions such as food and medicine factories, breweries, dairies, municipalities and research institutes.

BEROEPSINLICHTING

Die biotegnoloog of mikrobioloog is 'n innoverende en selfversekerde persoon met 'n analitiese brein. Jy sal mikro-organismes kweek en identifiseer, die voorkoms en aktiwiteite van skadelike en voordelige organismes in verskeie industrieë bestudeer, en mikro-organismes tot voordeel van die mens te manipuleer.

Diagnostiek (die beëindiging van 'n siekte deur van jou kennis gebruik te maak) sal deel uitmaak van jou werk in die volgende dissiplines:

Chemiese patologie – Die mediese wetenskap en spesialiteitspraktijk wat met alle aspekte van siektes verband hou, met spesifieke verwysing na die belangrike aard, oorsake en ontwikkeling van abnormale toestande asook die strukturele en funksionele veranderinge wat gepaard gaan met hierdie siekteprosesse.

Sitologie – Die studie van die chemie van die sel, anatomie, fisiologie en patologie.

Histopatologie – Die wetenskap of studie wat handel oor die sitologiese en histologiese strukture van abnormale weefsel.

Hematologie – Die mediese spesialisveld met betrekking tot bloed en bloedvormende weefsel.

Mikrobiologie – Die wetenskap oor mikroskopiese en ultra-mikroskopiese organismes.

SKOOLVAKKE

Wiskunde, Wetenskap, Engels, en Biologie op HG.

TOELATINGSVEREISTES

Elke instansie het sy eie toelatingsvereistes.

PRAKTIESE OPLEIDING

Een jaar praktiese opleiding by 'n opleidingslaboratorium.

KWALIFIKASIES UNIVERSITEITE

BSc (Biotegnologie) BSc Honeurs
MSc PhD

BEROEPSGELEENTHEDE

Laboratorium tegnikus, kwaliteitversekeraar in voedsel industrie, akademikus, forensiese wetenskaplike – menslike identifikasie, navorser (plant biotegnologie, voedsel mikrobiologie, kanker, mediese navorsing, strukturele biologie, genetika, omgewing en toegepaste mikrobiologie), biotegnoloog en verteenwoordiger.

KWALIFIKASIES UNIVERSITEITE VIR TEGNOLOGIE

NDip: Biotegnologie BTech: Biotegnologie
MTech: Biotegnologie DTech: Biotegnologie

BEROEPSGELEENTHEDE

Na voltooiing van die Nasionale Diploma sal jy kwalifiseer om aansoek te doen vir 'n posisie in industrieë en instansies soos kos- en medisynefabrieke, brouerye, melkerye, munisipaliteite, en navorsingsentra.

