

BSc Human Life Sciences

With Human Life Sciences, we aim to understand the structure, function, and interactions of the human body within its biological and ecological context, providing a foundation for fields such as medicine, physiological sciences, psychology, and biomedical research.

Focal areas

- **Biology:** Physiology in combination with Anatomy OR Genetics OR Biochemistry and Bioinformatics
- **Biology with Psychology:** Physiology in combination with Psychology and Genetics

There are also two focus areas available in the BSc programme with Physiology as major subject:

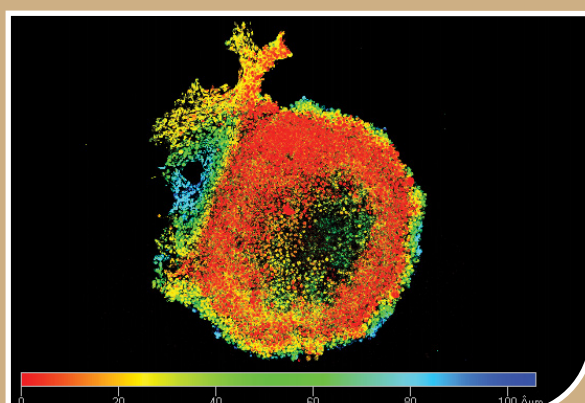
1. BSc (focal area Applied Medicinal Chemistry)
Combines physiology, chemistry, and pharmacology to support drug discovery and therapeutic design.
2. BSc (focal area Biomedical Mathematical Sciences)
Integrates physiology with mathematics, statistics, and computational modelling to address complex biological and health-related questions.

NB: Please consult the Yearbook of each faculty for detailed information on subjects, modules and specific minimum admission requirements.

Do I qualify?

Minimum admission requirements

- A NSC average final mark of **65%** (excluding Life Orientation)
- English OR Afrikaans
(Home Language or First Additional Language): **50%**
- Maths **60%** or **70%** (depending on subject choice)
- Physical Sciences **50%**



Focal areas explained:

Physiology

Physiology, the main subject for this degree programme, is the study of the human body and all its integrate biochemical systems and pathways that makes the human body function. This programme provides the basis for understanding the functioning of the human body and mind, from molecular to systems level.

Biology

This focal area provides students with practical, hands-on exposure to a wide range of biological disciplines. It is designed to strengthen laboratory skills, scientific reasoning, and research readiness, making it particularly valuable for those intending to pursue postgraduate studies or laboratory-based careers.

Biology with Psychology

This focal area equips students with both biological knowledge and key psychological insights. It emphasises the development of interpersonal and analytical soft skills, enabling students to better understand human behavior and apply this understanding in a variety of psychological or human-centred contexts.

Red blood cell and platelet

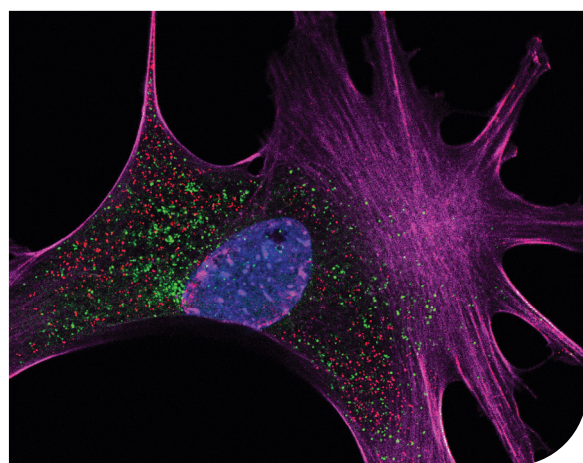
Why study Human Life Sciences?

Holistic understanding of human physiology

- Human Life Sciences equips students with the ability to study the human body as an integrated and dynamic system. Physiologists investigate how organs and biological processes interact, particularly in the context of major global and local health challenges. These include noncommunicable diseases such as cancer, cardiovascular and metabolic disorders, and neurodegenerative conditions like Parkinson's disease and Alzheimer's disease. The field also addresses infectious diseases that continue to shape global health, including HIV, COVID19, and Long COVID.

Insight into mechanisms underlying disease

- A central aim of the discipline is to uncover the biological mechanisms that drive the onset and progression of pathological states. By gaining this deeper mechanistic understanding, researchers and practitioners are better positioned to contribute to the development of innovative therapeutic strategies and interventions aimed at preventing, managing, or treating disease.



Why study Human Life Sciences at Stellenbosch University?

We have world class lecturers and researchers in our department.

- In our Molecular Physiology, Histology and Cellular Physiology Laboratories, students are trained on the newest available equipment in new techniques and developing new analytical techniques.
- We are one of the first physiology departments in the country to use a modern computerised physiology practical training programme, where students are exposed to the newest technology with interactive programmes to stimulate critical thinking in physiology.
- The department is home to a range of specialised laboratories for postgraduate research in cancer, cardiology, neurology, haematology muscle, nutrition and drug delivery.

What can I do with a degree in Human Life Sciences?

Health, wellness, and clinical professions

- Exercise physiologist
- Nutritionist
- Performance analyst
- Rehabilitation assistant (with further certification)
- Medical/Clinical representative

Research and Laboratory Careers

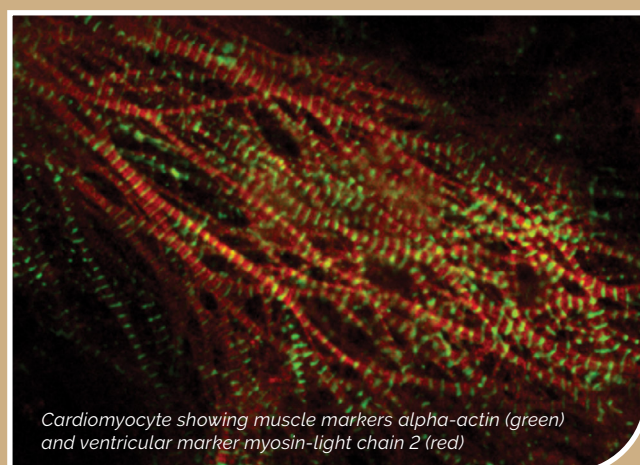
- Biomedical Scientist
- Laboratory analyst/technician
- Clinical trial assistant
- Stem cell researcher

Forensic, analytical, and applied sciences

- Forensic scientist
- Anthropometrist
- Quality Control
- Toxicology laboratory assistant

Teaching, communication, and community health

- Life Sciences teacher (with PGCE)
- Science Communicator
- Education Officer
- Public Health Promoter



Contact details

Department of Physiological Sciences

E-mail: gas@sun.ac.za (Mrs. Grazelda Simon)

Tel: +27 21 808 3146

Website: www.su.ac.za/physiological-sciences

Contact our Coordinator: student and academic affairs

at scienceadmin@sun.ac.za

Deadline: Apply with your grade 11 marks by 31 July

General selection and application criteria

www.su.ac.za/ugrequirements

BSc Menslike Lewenswetenskappe

In Menslike Lewenswetenskappe poog ons om die struktuur, funksie en interaksies van die menslike liggaam binne sy biologiese en ekologiese konteks te verstaan, wat 'n basis bied vir velde soos geneeskunde, fisiologiese wetenskappe, sielkunde en biomediese navorsing.

Fokusareas

- **Biologie:** Fisiologie in kombinasie met Anatomie OF Genetika OF Biochemie en Bioinformatika
- **Biologie met Sielkunde:** Fisiologie in kombinasie met Sielkunde en Genetika

Daar is ook twee fokusareas in die BSc-program beskikbaar met Fisiologie as hoofvak:

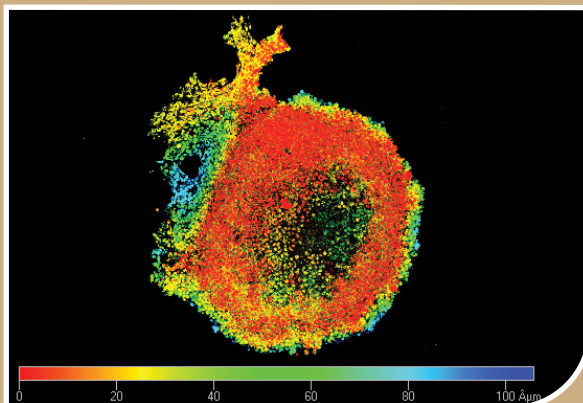
1. BSc (fokusarea Toegepaste Medisinale Chemie)
Kombineer fisiologie, chemie en farmakologie om geneesmiddelontdekking en terapeutiese ontwerp te ondersteun
2. BSc (fokusarea Biomediese Wiskundige Wetenskappe)
Integreer fisiologie met wiskunde, statistiek en berekeningsmodellering om komplekse biologiese en gesondheidsverwante kwessies aan te pak.

NB: Raadpleeg die nuutste Jaarboek van die Fakulteit Natuurwetenskappe (Deel 5) vir inligting oor vakke, modules, en spesifieke toelatingsvereistes.

Voldoen ek aan die vereistes?

Minimum toelatingsvereistes

- 'n NSS-gemiddeld van **65%** (Lewensorientering uitgesluit)
- Engels OF Afrikaans (Huistaal of Eerste Addisionele Taal) **50%**
- Wiskunde: **60% OF 70%** (na gelang van jou vakkeuse)
- Fisiese Wetenskappe **50%**



Fokusareas uiteengesit:

Fisiologie

Fisiologie is die studie van die menslike liggaam en al die geïntegreerde biochemiese sisteme en biologiese paaie wat die menslike liggaam laat funksioneer. Hierdie program verskaf die basis om die funksionering van die menslike liggaam en bewussyn te verstaan, van molekulêre tot sisteemvlak.

Biologie

Hierdie fokusarea bied aan studente praktiese blootstelling aan 'n wye reeks biologiese dissiplines. Dit is ontwerp om laboratoriumvaardighede, wetenskaplike redenasie en navorsingsgereedheid te versterk, wat dit veral waardevol maak vir diegene wat van voorneme is om nagraadse studies of laboratoriumgebaseerde loopbane te volg.

Biologie met Sielkunde

Hierdie fokusarea rus studente toe met beide biologiese kennis en belangrike sielkundige insigte. Dit beklemtoon die ontwikkeling van interpersoonlike en analitiese sagte vaardighede, wat studente in staat stel om menslike gedrag beter te verstaan en hierdie begrip in 'n verskeidenheid sielkundige of mensgesentreerde kontekste toe te pas.

Rooi bloedsel en bloedplaatjie

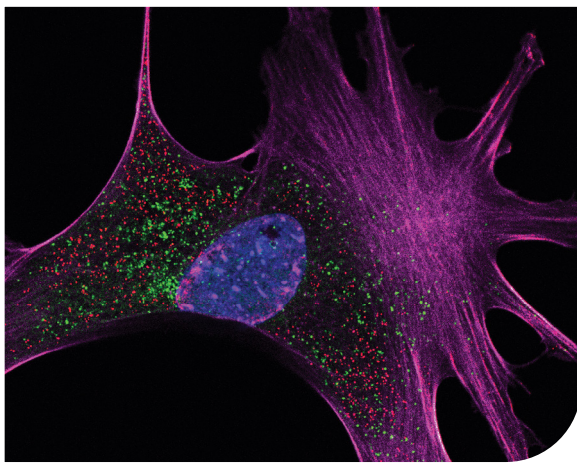
Waarom BSc Menslike Lewenswetenskappe?

Holistiese begrip van menslike fisiologie

- Menslike Lewenswetenskappe rus studente toe met die vermoë om die menslike liggaam as 'n geïntegreerde en dinamiese stelsel te bestudeer. Fisioloë ondersoek die interaksie tussen organe en biologiese prosesse, veral in die konteks van groot globale en plaaslike gesondheidsuitdagings. Dit sluit nie-oordraagbare siektes soos kanker, kardiovaskulêre en metabiese afwykings, en neurodegeneratiewe toestande soos Parkinson se siekte en Alzheimer se siekte in. Die veld bestudeer ook aansteeklike siektes wat wêreldwyd gesondheidsorg beïnvloed soos MIV Covid19 en Lang-Covid.

Insig in meganismes onderliggend aan siektes

- 'n Sentrale doelwit van die dissipline is om die biologiese meganismes te ontdek wat die aanvang en progressie van patologiese toestande dryf. Hierdie dieper meganistiese begrip stel navorsers en klinici in staat om bydraes te lewer tot die ontwikkeling van innoverende terapeutiese strategieë en intervensies wat daarop gemik is om siektes te voorkom, te bestuur of te behandel.



Waarom BSc Menslike Lewenswetenskappe by die Universiteit Stellenbosch?

Ons dosente en navorsers is leiers op hul onderskeie vakgebiede.

- Ons Molekulêre Fisiologie-, Histologie-, en Sellulêre Fisiologie- laboratoriums beskik oor die nuutste beskikbare toerusting. Hier word studente in nuwe tegnieke opgelei asook om nuwe analitiese tegnieke te ontwikkel.
- Ons is een van die eerste fisiologie-departemente in die land wat 'n moderne gerekenariseerde opleidingsprogram vir fisiologieprakties gebruik. Studente word blootgestel aan die nuutste tegnologie met interaktiewe programme om kritiese denke in fisiologie aan te moedig.
- Die departement huisves 'n verskeidenheid gespesialiseerde laboratoriums vir nagraadse navorsing in kanker, kardiologie, neurologie, hematologie, spiëre, voeding en geneesmiddelaflewering.

Wat kan ek doen met BSc Menslike Lewenswetenskappe?

Ons gegradueerdes het 'n stewige grondslag in fisiologie, biologie en toegepaste laboratoriumvaardighede, wat deure oopmaak vir 'n wye reeks beroepe in gesondheidsorg, navorsing, tegnologie, onderwys en die nywerheid.

Gesondheids-, welstands- en kliniese beroepe

- Oefeningfisioloog
- Voedingkundige
- Prestasie-ontleder
- Rehabilitasie-assistent (met verdere sertifisering)
- Mediese/Kliniese verteenwoordiger

Navorsings- en Laboratoriumloopbane

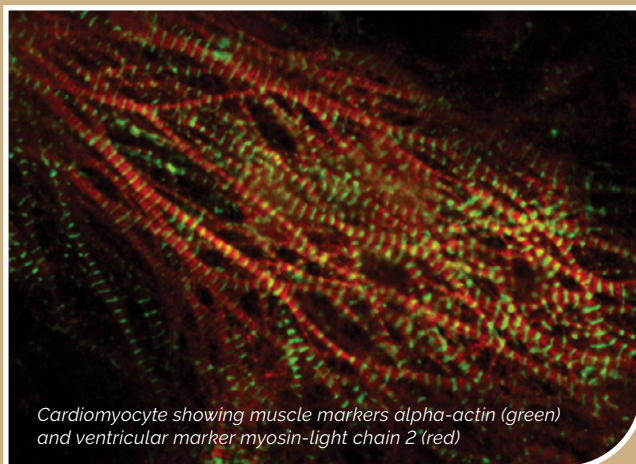
- Biomediese Wetenskaplike
- Laboratoriumontleder/tegnikus
- Kliniese toets-assistent
- Stamselnavorsers

Forensiese, analitiese en toegepaste wetenskappe

- Forensiese wetenskaplike
- Antropometris
- Gehaltebeheer
- Toksikologie-laboratoriumassistent

Onderrig, kommunikasie en gemeenskapsgesondheid

Lewenswetenskappe-onderwyser (met NOS)
Wetenskapkommunikeerder
Onderwysbeampte



Kontak ons

Departement Fisiologiese Wetenskappe

E-pos: gas@sun.ac.za (Me. Grazelda Simon)

Tel: +27 21 808 3146

Webwerf: www.su.ac.za/physiological-sciences

Kontak ons Koördineerder:

studente en akademiese aangeleenthede

by scienceadmin@sun.ac.za

Sperdatum: Doen aansoek met jou graad 11-punte teen 31 Julie

Algemene toelatings- en keuringskriteria:

www.su.ac.za/ugrequirements