

BSc Human Life Sciences

Physiology is the study of the human body and all its integrated biochemical systems and pathways that make the human body function. This programme provides the basis for understanding the functioning of the human body and mind, from molecular to systems level.

Focal areas

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

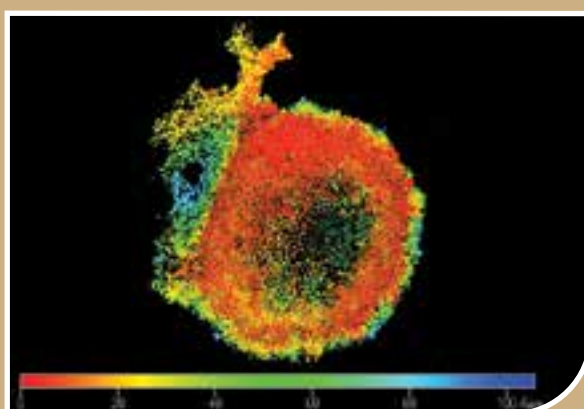
Consult the latest Faculty of Science Yearbook (Part 5) for information on subjects and modules.

Do I qualify?

Minimum admission requirements to apply

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

TAKE NOTE: The selection criteria used for admission are higher.



Focal areas explained

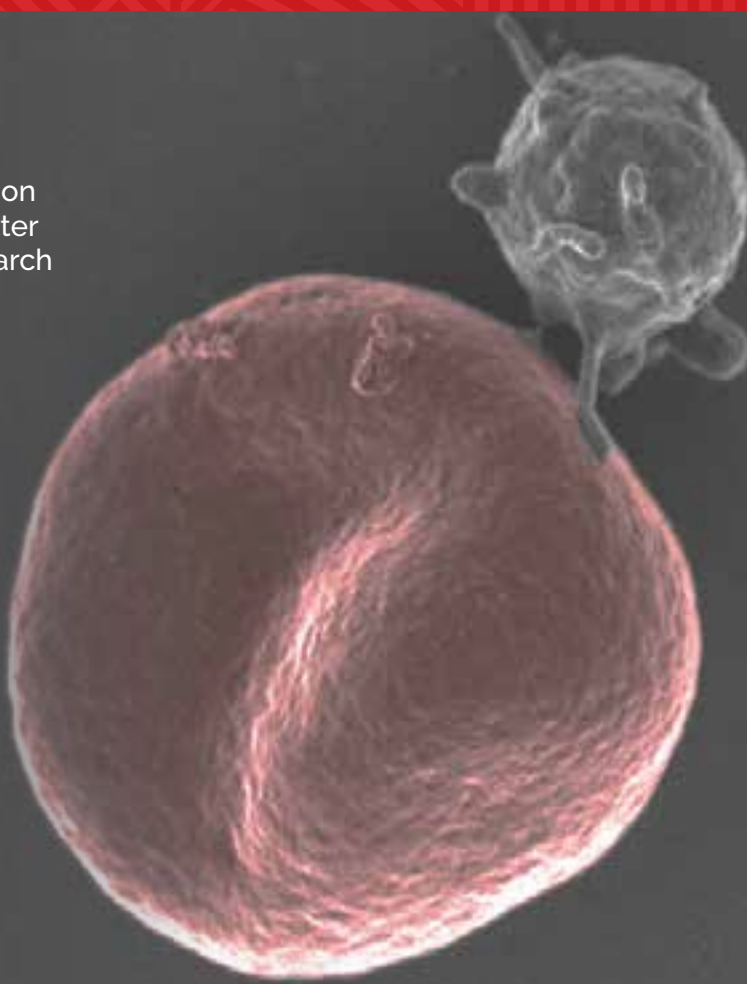
Biology

This focal area offers students a hands-on experience across various subjects, better preparing them for post-graduate research or lab-based work.

Biology with Psychology

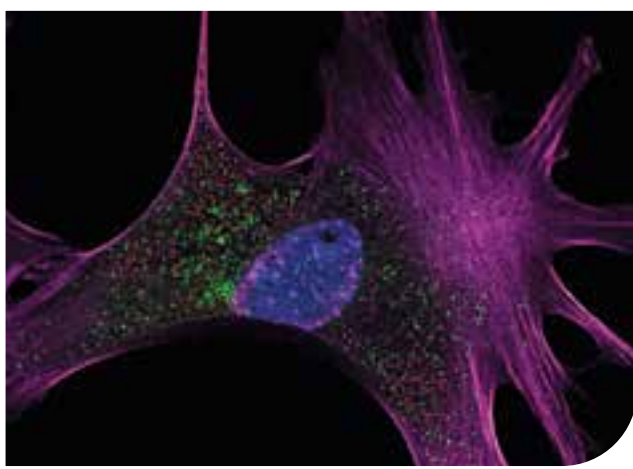
This focal area helps students develop essential soft skills to better understand human behaviour and enhance their interactions in psychological contexts.

Red blood cell and platelet



Why study Human Life Sciences?

- Physiologists undertake investigative research to better understand the health challenges facing South Africa, including cancer, heart and metabolic diseases, degenerative neurological diseases such as Parkinsons and Alzheimers, and novel diseases such as COVID-19 and Long COVID.
- The rationale is to gain a deeper understanding of the underlying mechanisms that drive the onset of pathophysiologic states, with the ultimate aim of designing novel therapeutic interventions.



Why study Human Life Sciences at Stellenbosch University?

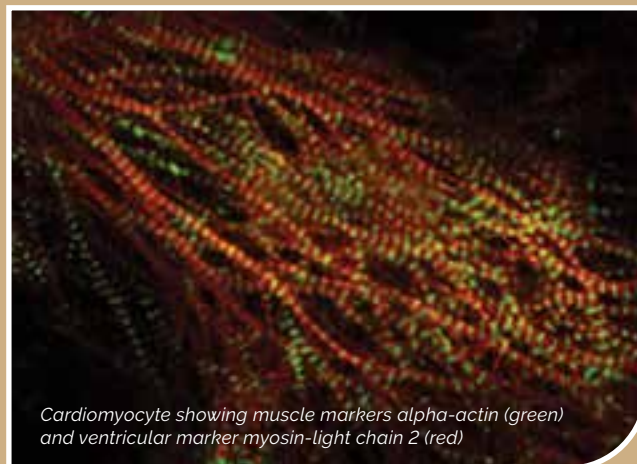
- We have world class lecturers and researchers in our department.
- In our Molecular Physiology, Histology and Cellular Physiology Laboratories, students are trained on the newest available equipment in new techniques and developing new analytical techniques.
- We are one of the first physiology departments 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.

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

1. BSc (focal area Applied Medicinal Chemistry)
2. BSc (focal area Biomedical Mathematical Sciences)

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

- | | |
|-----------------------|------------------------|
| Anthropometrist | Medical representative |
| Biokineticist | Nutritionist |
| Biomedical scientist | Performance analyst |
| Exercise physiologist | Physiologist |
| Fitness manager | Psychologist |
| Forensic scientist | Stem Cell researcher |
| Laboratory analyst | Medical Journalist |
| Life Sciences teacher | Law (Patent Attorney) |



Cardiomyocyte showing muscle markers alpha-actin (green) and ventricular marker myosin-light chain 2 (red)

Contact details

Department of Physiological Sciences

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

Tel: +27 21 808 3146

Website: <https://www.sun.ac.za/english/faculty/science/physiologicalsciences>

Contact our recruitment officer
at science@sun.ac.za

Deadline: Apply with your grade 11 marks
by 31 July

**General admission and
selection criteria**

<https://www.sun.ac.za/english/maties>

BSc Menslike Lewenswetenskappe

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.

Fokusareas

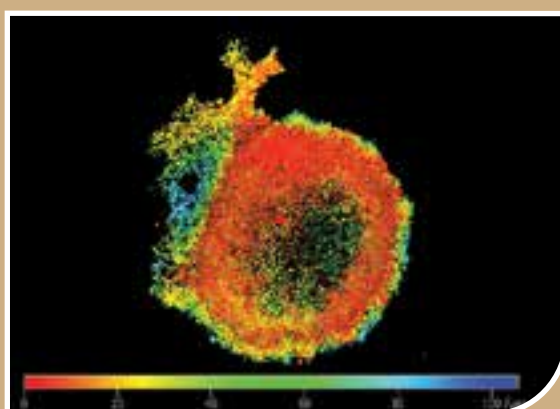
- **Biologie:** Fisiologie in kombinasie met Anatomie OF Genetika OF Biochemie en Bioinformatika
- **Biologie met Sielkunde:** Fisiologie in kombinasie met Sielkunde en Genetika

Raadpleeg die nuutste Jaarboek van die Fakulteit Natuurwetenskappe (Deel 5) vir inligting oor vakke en modules.

Voldoen ek aan die vereistes?

Minimum toelatingsvereistes om aansoek te doen

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



NEEM KENNIS: Die keuringskriteria wat vir toelating gebruik word, is hoër.

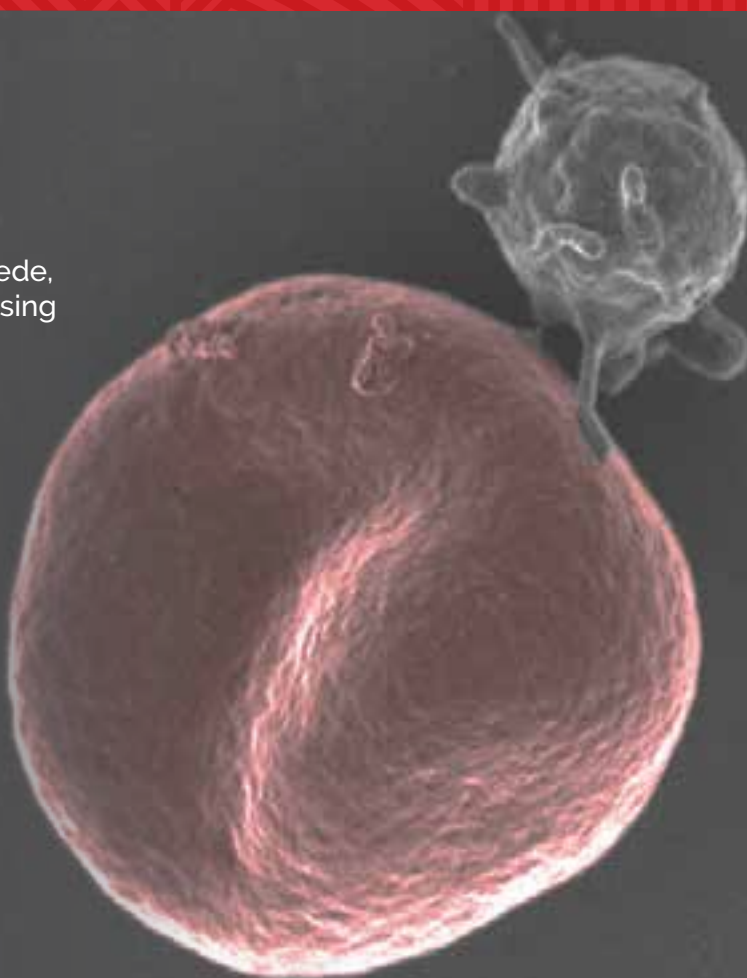
Fokusareas uiteengesit

Biologie

Hierdie fokusarea bied aan studente praktiese ervaring op verskeie vakgebiede, en berei hulle voor vir nagraadse navorsing of laboratorium-gebaseerde werk.

Biology met Sielkunde

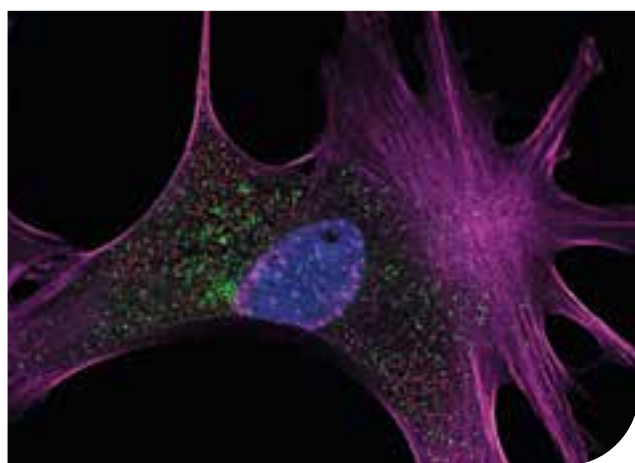
Hierdie fokusarea help studente om noodsaaklike sagte vaardighede te ontwikkel om menslike gedrag beter te verstaan en om hul interaksies in sielkundige kontekste te verbeter.



Rooi bloedsel en bloedplaatjie

Waarom BSc Menslike Lewenswetenskappe?

- Fisioloë onderneem ondersoekende navorsing om die gesondheidsuitdagings wat Suid-Afrika in die gesig staar, beter te verstaan. Dit sluit kanker, hart- en metaboliese siektes, degeneratiewe siektes soos Parkinson se siekte en Alzheimer se siekte, en nuwe siektes soos COVID-19 en Lang COVID in.
- Die rasionaal is om 'n beter begrip te verkry van die onderliggende meganismes wat die aanvang van patofisiologiese toestande dryf, met die uiteindelik doel om nuwe terapeutiese intervensies te ontwerp.



Waarom BSc Menslike Lewenswetenskappe by die Universiteit Stellenbosch?

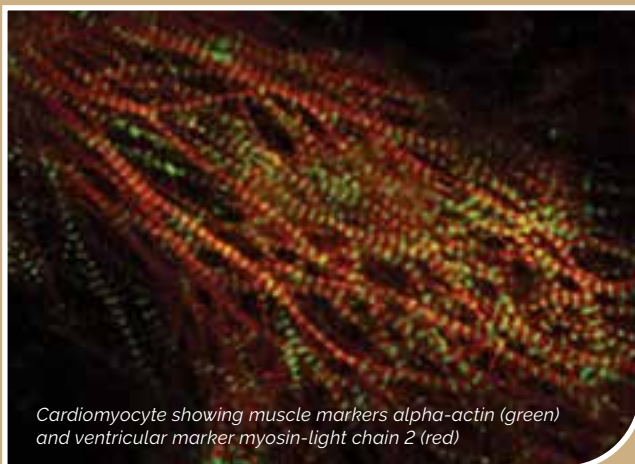
- Ons dosente en navorsers is leiers op hul onderskeie vakgebiede.
- Ons Molekulêre Fisiologie-, Histologie-, en Sellulêre Fisiologie- laboratoriums beskik oor die nuutste beskikbare toerusting. Hier word studente in nuwe tegnieke opgelei asook om nuwe analitiese tegnieke te ontwikkel.
- Ons is een van 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, spiere, voeding en geneesmiddelaflewering.

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

1. BSc (fokusarea Toegepaste Medisinale Chemie)
2. BSc (fokusarea Biomediese Wiskundige Wetenskappe)

Wat kan ek doen met BSc Menslike Lewenswetenskappe?

Antropometris	Mediese verteenwoordiger
Biokinetikus	Voedingskundige
Biomediese wetenskaplike	Prestasie-ontleder
Oefeningfisioloog	Fisioloog
Fiksheidsbestuurder	Sielkundige
Forensiese wetenskaplike	Stamselnavorsers
Laboratoriumanalisis	Mediese joernalis
Lewenswetenskappe-onderwyser	Regte (Patente prokureur)



Cardiomyocyte showing muscle markers alpha-actin (green) and ventricular marker myosin-light chain 2 (red)

Kontak ons

Departement Fisiologiese Wetenskappe

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

Tel: +27 21 808 3146

Webwerf: <https://www.sun.ac.za/afrikaans/faculty/science/physiologicalsciences>

Kontak ons werwingsbeampte

by science@sun.ac.za

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

Algemene toelatings- en keuringskriteria:

<https://www.sun.ac.za/afrikaans/maties>