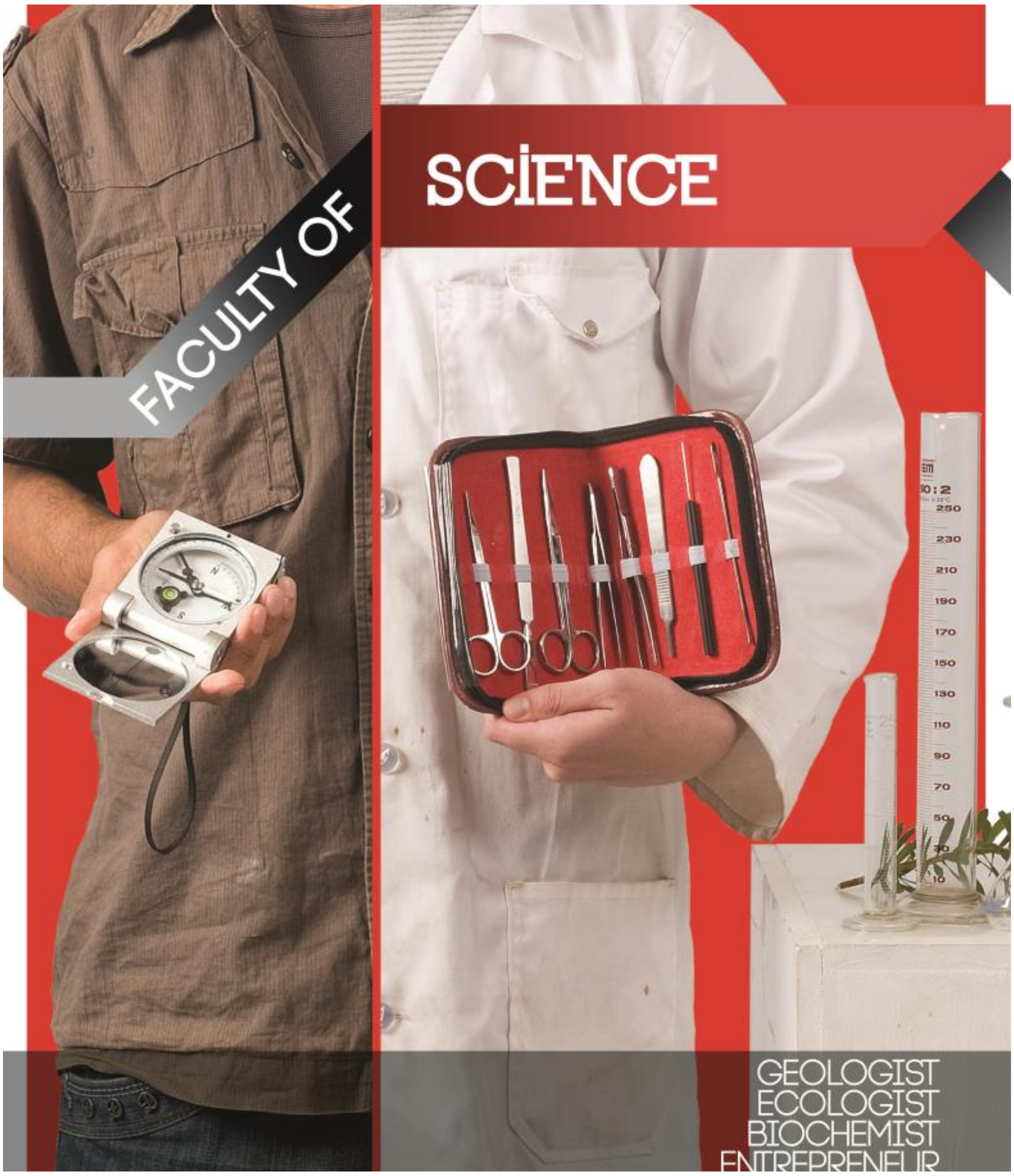
STUDENTE 2017



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Van die dekaan

Baie welkom op die pragtige Matie-kampus!

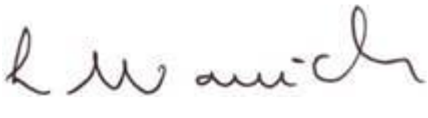
As student aan die Fakulteit Natuurwetenskappe staan jy voor nuwe uitdagings. Ons land het 'n groot tekort aan kundiges in die wiskunde, wetenskap en tegnologie. Jy kan jou op Stellenbosch voorberei om ’n bydrae te lewer wat sal verseker dat Suid-Afrika en al sy mense meer voorspoedig sal wees en dat ons op die internasionale wetenskaplike en tegnologiese fronte kan meeding.

Dit is belangrik om hard te werk, veral aan die begin van die eerste jaar, om ’n goeie fondament te verseker waarop jy kan voortbou. Gedurende hierdie proses sal jy ook as mens en as wetenskaplike ontwikkel. Dit is vir ons belangrik dat elke wetenskappe-student in ’n kritiese wetenskaplike, kreatiewe denker en probleemoplosser sal ontwikkel. Die ontwikkelinge van hierdie vaardighede maak dus deel uit van die belangrike uitkomste van die programme wat ons aanbied.

Die akademiese jaar is kort en tyd is kosbaar. Jou studies gaan selfdissipline, pligsgetrouheid, harde werk en toewyding verg. Terselfdertyd wil ek jou aanmoedig om aan die verskeidenheid sportsoorte en studenteaktiwiteite wat op kampus aangebied word, deel te neem, sodat jy ’n gesonde balans en lewenstyl kan handhaaf.

Ek hoop jy voel gou tuis. Jou eerste jaar is ’n uitdaging en avontuur. Alles van die beste vir jou nuwe lewe as ’n Matie.

Vriendelike groete,



Prof. Louise Warnich (DEKAAN)

From the dean

Welcome on the beautiful Matie campus!

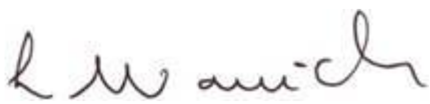
As student in the Faculty of Science you are now facing new challenges. Our country has a shortage of experts in mathematics, science, and technology. Here at Stellenbosch you can prepare yourself to contribute to the process of making South Africa and all its people more prosperous and to ensure that we will be able to compete internationally in the fields of science and technology.

It is important to work really hard, especially at the start of the first year, to ensure a good foundation on which you can build. During this process you will also develop as a person and as a scientist. It is important to us that every science student should develop into a critical scientist, a creative thinker and a problem solver. The development of these skills is therefore among the important outcomes of the programmes we offer.

The academic year is short and time precious. Your studies will require self discipline, diligence, hard work and dedication. At the same time I want to encourage you to participate in all the various sport disciplines and student activities offered on campus in order to maintain a well-balanced, healthy lifestyle.

I hope you feel at home soon. Your first year is a challenge and an adventure. All the best with your new life as a Matie.

Kind regards



Prof. Louise Warnich (DEAN)

Kontakpersone in die Fakulteit

Akademiese koördineerder / Academic coordinator

Wilma Wagener

021 808 3063 ww@sun.ac.za

AI Perold Gebou/Building K:2012

Vir programhulp en -navrae en VGP ondersteuning

Fakulteitsadministrateur / Faculty administrator

Bevin Abels

021 808 4832

Admin A K:2027 bpa@sun.ac.za

Vir registrasie van program- en moduleveranderings

Rekenaargebruik / Computer usage

Ilse de Kock

021 808 2682 idk@sun.ac.za

AI Perold Gebou/Building K:2016b

Sekretaresse van die dekaan / Dean's secretary

Suzette Els

021 808 3072 se@sun.ac.za

AI Perold Gebou/Building K:2014

Direkteur: Fakulteitsbestuur / Director: Faculty Management

Mariétta van den Worm

021 808 3760 mvdworm@sun.ac.za

AI Perold Gebou/Building K:2013

Who to contact in the Faculty

Hoe om te registreer

Registrasie vir die program waarvoor jy voorwaardelik toegelaat is, kan aanlyn of in persoon gedoen word. As jy seker is van jou modules, kan jy aanlyn registreer by **www.mymaties.co**. Hierdie diens is vanaf **12 Januarie 2017** beskikbaar. Let asseblief op die volgende:

- SLEGS studente wat die Nasionale Senior Sertifikaat in die SA skoolstelsel of die skooleindsertifikaat van die Onafhanklike Eksamenraad verwerf het, sal kan e-Registreer.
- **Verlengde graadprogram (VGP) studente kan NIE elektronies registreer nie.**
- As jy onseker is oor jou vakkeuse of indien jy nog nie elektronies geregistreer het nie, **MOET** jy op **Maandag 23 Januarie 2017** tussen 13:30 en 15:00 by **NARGA A** aanmeld vir registrasie en hulp.

Dit is **jou** verantwoordelikheid om seker te maak dat jy vir al die korrekte modules van jou gekose program geregistreer is. Daarom **MOET** jy die nuutste weergawe (2017) van die **Natuurwetenskappe Jaarboek (Deel 5)** gebruik.

Kry 'n kopie van die 2017 Jaarboek by: **www.sun.ac.za/scienc** (onder die aftrekkieslys (*dropdown menu*) "vir studente") of 'n **harde kopie** by **Admin A se inligtingskiosk**.

How to register

You can register online or in person for the programme you have been conditionally accepted for. If you are certain about your modules, you can register online at **www.mymaties.co**. This service is available from **12 January 2017**. Please take note of the following:

- ONLY students who have obtained the National Senior Certificate of the SA school system or the Independent Examination Board school-leaving certificate, can register electronically.
- **Students doing an extended degree programme (EDP) CANNOT register electronically.**
- If you are unsure about your subject choices, or have not yet registered electronically, you **HAVE** to be at **NARGA A** on **Monday 23 January 2017** between 13:30 and 15:00 to register and to receive the necessary guidance.

It remains **your** responsibility to ensure that you register for the correct modules specific to your programme. Therefore it is **ESSENTIAL** that you use the latest version (2017) of the **Science Calendar (Part 5)** as a reference. Obtain a copy of the 2017 Calendar from **www.sun.ac.za/science** (under the dropdown menu "for students") or a **hard copy** from the **Info Kiosk in Admin A.**

Programme vir 2017

Program	Stroom	Eerstejaarskurrikulum
Biologiese Wetenskappe		
Biodiversiteit & Ekologie		1
Molekulêre Biologie & Biotegnolo-		1 of 3 (met Bio 154)
Menslike Lewenswetenskappe	Biologie	1 of 3 (met Bio 154)
	Biologie met Sielkunde	2
Sportwetenskap		spesifiek*
Fisiese Wetenskappe		
Chemie	Chemie & Polimeerwetenskap	3, 4, 5 of 6
	Chemiese Biologie	3
	Tekstiel- en Polimeerwetenskap	3, 5 of 6
Fisika	Kernfisika, Stralings- en Gesondheidsfisika, *Laserfisika (Fisiese Rigting)	5, 6 of 7
	*Laserfisika (Biologiese Rigting)	3
	Teoretiese Fisika	7
Aardwetenskap		spesifiek*
GeoInformatika		spesifiek*
Wiskundige Wetenskappe		
Wiskundige Wetenskappe	Finansiële Wiskunde	spes variasies van 7*
	Rekenaarwetenskap	spes variasies van 7*
	Toegepaste Wiskunde	spes variasies van 7*
	Wiskunde	spes variasies van 7*
	Wiskundige Statistiek	spes variasies van 7*
	Operasionele Navorsing	spes variasies van 7*
	Biowiskunde	spes variasies van 7*

* sien Jaarboek 2017 Deel 5 Natuurwetenskappe

Programmes for 2017

Programme	Stream	First Year Curricula
Biological Sciences		
Biodiversity & Ecology		1
Molecular Biology & Biotechnology		1 or 3 (with Bio 154)
Human Life Sciences	Biology	1 or 3 (with Bio 154)
	Biology with Psychology	2
Sport Science		specific*
Physical Sciences		
Chemistry	Chemistry and Polymer Science	3, 4, 5 or 6
	Chemical Biology	3
	Textile and Polymer Science	3, 5 or 6
Physics	Nuclear Physics, Radiation and Therapy Physics, *Laser Physics (Physical)	5 , 6 or 7
	*Laser Physics (Biological)	3
	Theoretical Physics	7
Earth Science		specific*
GeoInformatics		specific*
Mathematical Sciences		
Mathematical Sciences	Financial Mathematics	spec variations of 7*
	Computer Science	spec variations of 7*
	Applied Mathematics	spec variations of 7*
	Mathematics	spec variations of 7*
	Mathematical Statistics	spec variations of 7*
	Operational Research	spec variations of 7*
	Biomathematics	spec variations of 7*

* see Calendar 2017 Part 5 Science

Eerstejaarskurrikula 2017

Algemene toelatingsvereistes

- Minimum van 65% gemiddeld in Nasionale Senior Sertifikaat of Onafhanklike Eksamenraad-skooleindsertifikaat
- Afrikaans of Engels (Huistaal of Eerste Addisionele Taal) 4
- Aflegging van NNT's

*Sien tabelle hieronder vir spesifieke toelatingsvereistes

★ **Gebruik hierdie blad as kontrolelys vir korrekte registrasie**

Kurrikulum 1	
Wiskunde 5 & Fisiese Wetenskappe 4	
Biologie	124 & 144 & 154
Chemie	124 & 144
Fisika Bio	134 & 154
Wiskunde Bio	124
Rekenaarvaardigheid	171
Wetenskapkommu-nikasie-vaardigheid	172

Kurrikulum 2	
Wiskunde 5 & Fisiese Wetenskappe 4	
Biologie	124 & 154
Chemie	124 & 144
Fisika Bio	134 & 154
Wiskunde Bio	124
Rekenaarvaardigheid	171
Wetenskapkommu-nikasie-vaardigheid	172
Sielkunde	114 & 144

Kurrikulum 3	
Wiskunde 6 & Fisiese Wetenskappe 4	
Biologie	124 & 144 of 154
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Rekenaarvaardigheid	171
Wetenskapkommunikasie-vaardigheid	172

Kurrikulum 4	
Wiskunde 6 & Fisiese Wetenskappe 4	
Geo-omgewingswetenskap	124 & 154
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Rekenaarvaardigheid	171
Wetenskapkommu-nikasie-vaardigheid	172

Kurrikulum 5	
Wiskunde 6 & Fisiese Wetenskappe 4	
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Rekenaarwetenskap	114 & 144
Rekenaarvaardigheid	171
Wetenskapkommu-nikasie-vaardigheid	172

Kurrikulum 6	
Wiskunde 6 & Fisiese Wetenskappe 4	
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Waarskynlikheidsleer & Statistiek	114
Toegepaste Wiskunde	144
Rekenaarvaardigheid	171
Wetenskapkommu-nikasie-vaardigheid	172

Kurrikulum 7	
*Wiskunde 6 & Fisiese Wetenskappe 4 (*indien Fisika gevolg word)*	
Fisika	114 & 144
Wiskunde	114 & 144
Rekenaarwetenskap	114 & 144
Waarskynlikheidsleer & Statistiek	114
Toegepaste Wiskunde	144
Rekenaarvaardigheid	171
Wetenskapkommu-nikasie-vaardigheid	172

Verlengde Graadprogramme Jaar 1	
Spesiale keuring indien nie voldoen aan hoofstroom toelatingsvereistes	
Biologie	146
Chemie	176
Universiteitspraktyk in die Natuurwetenskappe	176
Fisika	176
Rekenaarvaardigheid	176
Wiskunde **OF** Wiskun-de Bio	186 176
Wetenskapkommu-nikasie-vaardigheid	116 & 146

Aardwetenskap	
*Wiskunde 6 OF *Wiskunde 5 (indien Wisk Bio en Fisika Bio gevolg word) & Fisiese Wetenskappe 4*	
Aardwetenskap Veldvaardighede	172
Chemie	124 & 144
Geo-omgewingsweten-skap	124 & 154
Rekenaarvaardigheid	171
Wetenskapkommu-nikasie-vaardigheid	172
EN	
Fisika	114 &144 plus
Wiskunde	114 & 144
OF	
*Fisika Bio	134 & 154 plus
*Wiskunde Bio	124 plus
Biologie	124
OF	
*Fisika Bio	134 & 154 plus
Wiskunde	114 & 144

Wiskundige Wetenskappe
Wiskunde 6 & Fisiese Wetenskappe 4 (indien Fisika & Chemie gevolg word)
Variasies van Kurrikulum 7 soos deur stroom bepaal
*Sien Natuurwetenskappe Jaarboek Deel 5 2017

GeoInformatika	
*Wiskunde 6 OF *Wiskunde 5 (indien Wisk Bio & Fisika Bio gevolg word) & Fisiese Wetenskappe 4*	
Geo-omgewingswetenskap	124 & 154
Rekenaarvaardigheid	171
Wetenskapkommu-nikasie-vaardigheid	172
EN	
Wiskunde	114 &144 plus
Fisika	114 &144 plus
Rekenaarwetenskap	114 & 144
OF	
*Wiskunde Bio	124 plus
*Fisika Bio	134 & 154 plus
Biologie	124 plus
Chemie	124 & 144

Sportwetenskap	
Wiskunde 5 & Fisiese Weten-skappe 4	
Biologie	124 & 154
Chemie	124 & 144
Fisika Bio	134 & 154
Wiskunde Bio	124
Kinesiologie	162 & 182
Rekenaarvaar-digheid	171
Wetenskapkom-munikasie-vaardigheid	172

First Year Curricula for 2017

General admission requirements

- Minimum 65% average in National Senior Certificate or the school-leaving certificate from the Independent Examination Board
- Afrikaans or English (Home Language or First Additional Language) 4.
- Sit NBTs

*See tables below for specific admission requirements

Use this as a checklist to ensure that you register correctly.

Curriculum 1	
Mathematics 5 & Physical Science	
Biology	124 & 144 &
Chemistry	124 & 144
Physics Bio	134 & 154
Mathematics Bio	124
Computer Skills	171
Scientific Communication Skills	172

Curriculum 2	
Mathematics 5 & Physical Science 4	
Biology	124 & 154
Chemistry	124 & 144
Physics Bio	134 & 154
Mathematics Bio	124
Computer Skills	171
Scientific Communication Skills	172
Psychology	114 & 144

Curriculum 3	
Mathematics 6 & Physical Science 4	
Biology	124 & 144
Chemistry	124 & 144
Physics	114 & 144
Mathematics	114 & 144
Computer Skills	171
Scientific Communica-	172

Curriculum 4	
Mathematics 6 & Physical Science 4	
Geo-environmental Science	124 & 154
Chemistry	124 & 144
Physics	114 & 144
Mathematics	114 & 144
Computer Skills	171
Scientific Communication Skills	172

Curriculum 5	
Mathematics 6 & Physical Science 4	
Chemistry	124 & 144
Physics	114 & 144
Mathematics	114 & 144
Computer Science	114 & 144
Computer Skills	171
Scientific Communication Skills	172

Curriculum 6	
Mathematics 6 & Physical Science 4	
Chemistry	124 & 144
Physics	114 & 144
Mathematics	114 & 144
Probability Studies and Statistics	114
Applied Mathematics	144
Computer Skills	171
Scientific Communication Skills	172

Curriculum 7	
*Mathematics 6 & Physical Science 4 (*if Physics is taken)*	
Physics	114 & 144
Mathematics	114 & 144
Computer Science	114 & 144
Probability Studies & Statistics	114
Applied Mathematics	144
Computer Skills	171
Scientific Communication Skills	172

Sport Science	
Mathematics 5 & Physical Science 4	
Biology	124 & 154
Chemistry	124 & 144
Physics Bio	134 & 154
Mathematics Bio	124
Kinesiology	162 & 182
Computer Skills	171
Scientific Communication Skills	172

Mathematical Sciences
Mathematics 6 & Physical Science 4 (if Physics and Chemistry are taken)
Variations in Curriculum 7 as
*See Science Calendar Part 5 2017

GeoInformatics	
*Mathematics 6 OR *Mathematics 5 (if Maths Bio & Physics Bio are taken) & Physical Science 4*	
Geo-environmental	124 & 154
Computer Skills	171
Scientific Communication Skills	172
AND	
Mathematics	114 & 144 plus
Physics	114 & 144 plus
Computer Science	114 & 144
OR	
*Mathematics Bio	124 plus
*Physics Bio	134 & 154 plus
Biology	124 plus
Chemistry	124 & 144

Extended Degree Programmes Year 1	
Special approval if main programme requirements have not been achieved	
Biology	146
Chemistry	176
University Practice in the Natural Sciences	176
Physics	176
Computer Skills	176
Mathematics **OR** Mathematics Bio	186 176
Scientific Communication Skills	116 & 146

Earth Sciences	
*Mathematics 6 OR *Mathematics 5 (if Maths Bio & Physics Bio are taken) & Physical Science 4*	
Earth Science Field Skills	172
Chemistry	124 & 144
Geo-environmental Science	124 & 154
Computer Skills	171
Scientific Communication Skills	172
AND	
Physics	114 & 144 plus
Mathematics	114 & 144
OR	
*Physics Bio	134 & 154 plus
*Mathematics Bio	124 plus
Biology	124
OR	
*Physics Bio	134 & 154 plus
Mathematics	114 & 144

Verstaan die terminologie

Wie doen wat?

Rektor – die hoof van die Universiteit. Ons rektor is prof. Wim de Villiers.

Dekaan – die hoof van 'n fakulteit. Die Fakulteit Natuurwetenskappe se dekaan is prof. Louise Warnich.

Departementele voorsitter – die hoof van 'n departement (bv. Fisika of Plant- en Dierkunde). Daar is agt departemente in die Fakulteit Natuurwetenskappe.

Programkoördineerder – kontakpersoon by wie jy programspesifieke inligting kan kry.

Wat is 'n graad, 'n program, 'n stroom, 'n module?

'n Program is die korrekte benaming vir die "kursus" waarvoor jy inskryf, bv. *BSc Biodiversiteit en Ekologie*. Na afloop van jou suksesvolle studies in die Fakulteit Natuurwetenskappe sal jy 'n BSc-graad behaal.

Wanneer 'n bepaalde program twee of meer verskillende kursusopsies bied, word dit **strome** genoem. So het BSc Menslike Lewenswetenskappe twee **strome**, nl. *Biologie*, of *Biologie met Sielkunde*.

Elke program het 'n vasgestelde kurrikulum wat bestaan uit **vakke**, wat weer bestaan uit eenhede wat ons **modules** noem. Party **modules** word slegs in die eerste semester aangebied en ander net in die tweede semester. Sekere modules duur die hele jaar. Die kode van elke module dui hierdie inligting aan. Jy kan hierdie kodes in die Natuurwetenskappe Jaarboek (Deel 5) opsoek.

Wat beteken die syfers 114, 144?

Elke vak het 'n bepaalde **5-syferidentifikasie-kode** soos bv.11053. Jy sal hierdie syfer slegs nodig hê as jy iets wil opsoek op die intranet.

Die **3-syferkode** na die modulenaam is egter baie belangrik, bv *Chemie 124:*

Die eerste syfer, <u>1</u>24 dui op die jaar waarin dit gevolg word:

'n <u>1</u> staan vir die eerste jaar

'n <u>2</u> staan vir die tweede jaar en

'n <u>3</u> vir die derde jaar

Die tweede syfer, 124 gee'n aanduiding in watter semester die module gevolg word:

- Syfers 1, 2 of 3 dui op die EERSTE semester
- Syfers 4, 5 of 6 dui op die TWEEDE semester
- Syfers 7, 8 of 9 dui op 'n JAAR module

Die laaste syfer 124 help om te onderskei tussen verskillende modules.

Wat is 'n krediet?

Elke module het 'n bepaalde aantal krediete (bv. 16) wat bydra tot jou totale aantal krediete wat jy moet verwerf in jou progam.

Die kredietwaarde is 'n riglyn van hoeveel tyd jy gedurende die jaar aan die bepaalde module moet spandeer. Vermenigvuldig die kredietgetal met 10 om te bepaal wat die **minimum** aantal ure is (kontaksessies, studietyd, sowel as toets- en eksamentyd) wat jy aan die module sal moet spandeer, bv. 16 krediete x 10 = 160 uur.

Wat gebeur as jy nie genoeg modules slaag nie?

Indien jy n module slaag (prestasiepunt van 50%), verwerf jy die modulekrediete. In ons fakulteit moet jy ten minste **50%** van jou **eerstejaarkrediete** (nie modules nie) **verwerf** om toelating tot die tweede jaar te verkry. Indien nie, moet jy aansoek doen om hertoelating en aan die Hertoelatingskomitee deeglik motiveer waarom jy toegelaat moet word om jou studies voort te sit. Hertoelating word **NIE** gewaarborg nie. Soek betyds hulp indien jy probleme ondervind.

Wat is 'n moduleraamwerk?

Elke module sal 'n **moduleraamwerk** verskaf. Hierin is inligting soos die module se taalspesifikasie, die kontakdetails van dosente, die module-inhoud, hoe punte bereken word, riglyne vir bywoning van klasse, ens. Raadpleeg ook hierdie raamwerk oor wat jy moet doen wanneer jy nie verpligte kontaksessies kan bywoon nie.

Hoe lank is 'n kontaksessie?

Elke module se kontaksessies word aangedui in die Jaarboek.

L beteken **lesing** (50 minute)

P beteken **praktikum** (50 minute) ['n praktikasessie is gewoonlik 3P]

T beteken **tutoriaalsessie** (50 minute)

Taalaanbod

Die oorwegende taal van aanbieding van elke module word in die moduleraamwerk aangedui, maar alle toets- en assesseringsmateriaal is altyd in Engels **en** Afrikaans beskikbaar.

Make sense of the terminology

Who's who?

Rector – the head of the University. Our rector is Prof. Wim de Villiers.

Dean – the head of a faculty. Prof. Louise Warnich is the dean of the Faculty of Science.

Departmental chair – the head of a department (e.g. Physics or Earth Science). There are eight departments in the Faculty of Science.

Programme coordinator – Contact person for programme specific information.

What is a degree, a programme, a stream, a module?

Programme is the correct name for the particular "course" you are enrolled for, e.g. *BSc Biodiversity and Ecology*. After the successful completion of your studies in the Faculty of Science you will obtain a BSc degree.

If a particular programme has two different course options, they are called **streams**. For example, BSc Human Life Sciences has two **streams**: *Biology* or *Biology with Psychology*.

Each programme has a fixed curriculum consisting of **subjects**. **Subjects** consist of units called **modules**. Certain **modules** are only presented in the first semester, others only in the second semester, while some are taken for the full year. The code of each module will supply you with this information. These codes can be obtained from the Faculty Calendar (Part 5).

What do the numbers 114, 144, 171 mean?

Each subject has a specific **5-digit identification number**, e.g. 59404. This number is only used to find information on the intranet.

The **3-digit number** following the module name is very important, e.g. *Chemistry 124:*

The **first number** **1**24 indicates the year in which it is followed:

1 indicates the first year

2 indicates the second year and

3 the third year

The **second number 1<u>2</u>4** indicates the semester in which this module is presented.

- Numbers 1, 2 or 3 refers to the FIRST semester
- Numbers 4, 5 or 6 refers to the SECOND semester
- Numbers 7, 8 or 9 refers to a YEAR module

The **last number 12<u>4</u>** is used to differentiate between modules.

What is a credit?

Each module has a particular number of credits (e.g. 16) that contributes to the total credit value that is needed to complete your programme.

The credit value gives an indication of the total amount of time you should allocate to the particular module throughout the year. Multiply the credit value by 10 to obtain the **minimum** number of hours you need to spend on the module (contact sessions, study hours as well as test and exam time), e.g. 16 credits x 10 equals 160 hours.

What happens if you do not pass enough modules?

If you pass a module (final mark of 50%), you obtain the module credits. In our faculty you need to obtain **at least 50%** of your **first year credits** (not modules) to be allowed to continue with your second year. If not, you will have to apply for readmission and supply detailed motivation why the Readmission Committee should allow you to continue your studies. Readmission is **NOT** guaranteed. Seek help in time if you experience any problems.

What is a module framework?

Each module will provide a **module framework** containing information such as the language specification of the module, contact details of lecturers, module content, how marks are calculated and guidelines on class attendance etc. Also refer to this framework for what to do when you cannot attend compulsory contact sessions.

How long is a contact session?

The contact sessions for each module are indicated in the Calendar:

L is for **lecture** (50 min)

P is for **practical** (50 min) [a practical session is usually 3P]

T is for **tutorial session** (50 min)

Language offering

The language in which a contact session is mainly offered is indicated in the module framework, but all tests and assessment material are always available in both English **and** Afrikaans.

Lecturers 2017 Dosente

Modules, module coordinators, office numbers and contact details

BIOLOGIE / BIOLOGY			
124,144 en 154	Dr A Flemming	1006 Natuurwetenskappe	808 3057 aff@sun.ac.za
146	Dr M Mouton	2022 Natuurwetenskappe	808 2717
CHEMIE / CHEMISTRY			
124	Dr T le Roex	1041 De Beers	808 3343 tlr@sun.ac.za
144	Dr M Lutz	2010 Polimeerwetenskap	808 9251 mlutz@sun.ac.za
176	Dr C Pretorius	2016 Polimeerwetenskap	808 2866 pretoriusc@sun.ac.za
FISIKA / PHYSICS			
114 & 144	Dr GW Bosman	0054 Merensky	808 2525 gwb@sun.ac.za
Bio 134	Dr JJ van Zyl	1016 Merensky	808 3384 jjvz@sun.ac.za
Bio 154	Prof R Newman	1017 Merensky	808 2592 rtnewman@sun.ac.za
176	Mnr D Geduld	0056 Merensky	808 3361 geduld@sun.ac.za
FISIOLOGIE / PHYSIOLOGY			
114, 144	Dr DeW Strauss	2019 Mike de Vries	808 3156 jadws@sun.ac.za
GEO-OMGEWINGSWETENSKAP / GEO-ENVIRONMENTAL SCIENCE			
	Dr MA Spocter	2033A Kamer van Myn-wese	808 3095 mspocter@sun.ac.za
154	Dr R Heyn	1037A Kamer van Myn-wese	808 3116 rheyn@sun.ac.za
REKENAARWETENSKAP /COMPUTER SCIENCE			
114	Prof J Geldenhuys	A519 Alg Ing wese	808 4232 geld@sun.ac.za
REKENAARVAARDIGHEID / COMPUTER LITERACY			
171, 176	Me H Haroldt	3021 Natuurwetenskap	808 3521 hharoldt@sun.ac.za

WISKUNDE / MATHEMATICS			
114	Dr K Howell	1009D Wiskundige Wetenskappe Gebou	808 3281 kthowell@sun.ac.za
144	Prof S Wagner	1009D Wiskundige Wetenskappe Gebou	808 3269 swagner@sun.ac.za
Bio 124	Me L Wessels	1009D Wiskundige Wetenskappe Gebou	808 3852 lwessels@sun.ac.za
186	Me E Burger	1009D Wiskundige Wetenskappe Gebou	808 2628 ejburger@sun.ac.za
176	Mnr J Masuret	1009D Wiskundige Wetenskappe Gebou	808 3071 jmasuret@sun.ac.za
WAARSKYNLIKHEIDSLEER & STATISTIEK / PROBABILITY THEORY & STATISTICS			
114	Dr P Grobler	A221 Alg Ingwese	808 4229 pgrobler@sun.ac.za
TOEGEPASTE WISKUNDE / APPLIED MATHEMATICS			
144	Dr H Diedericks	A411 Alg Ingwese	808 4222 hardus@sun.ac.za
SIELKUNDE / PSYCHOLOGY			
114	Dr B Coetzee	2051 Wilcocksgebou	808 3979 bronwyne@sun.ac.za
144	Dr R Raomaney	2019 Wilcocksgebou	808 3973 rizwanaraomaney@sun.ac.za
WETENSKAPKOMMUNIKASIEVAARDIGHEID / SCIENTIFIC COMMUNICTION SKILLS			
116 & 146	Me Y Coetsee	Bosmanstraat 7	808 2695 yc@sun.ac.za
172	Me Z Bester	Bosmanstraat 7	808 9172 zbester@sun.ac.za
UNIVERSITY PRACTICE IN NATURAL SCIENCES			
176	Me W Wagener	2012 Peroldgebou	808 3063 ww@sun.ac.za

Handboeke 2017

2017 Text books

MODULES	NO	TITEL / TITLE	OUTEUR / AUTHOR	UITGEWERS / PUBLISHER
Biologie / Biology	124 144 154	Biology: The Dynamic Science (3rd ed)	Russel PJ, Hertz PE,McMillan B.	Brooks/Cole Cen-gage
Chemie / Chemistry	124	Chemistry, The Central Science: A Broad Perspective (3rd ed)	Brown, Le may, Bursten, Murphy, Langford, Sagatys	Pearson
	144	Chemistry, The Central Science: A Broad Perspective (3rd ed)	Brown, Le may, Bursten, Murphy, Langford, Sagatys	Pearson
Fisika / Physics	114 144	Sears and Zemensky's University Physics (14th ed)	HD Young & RA Freedman	Addison Wesly
	Bio 134 154	Physics (3rd ed)	Giamballista/ Richard-son	McGraw-Hill Education
Fisiologie/ Physiology	114 144	Essentials of Human Anatomy and Physiology (11th ed)	Elaine E Marieb	Pearson
Geo-omgewingsweten-skap Geo-environmental Science	154	Earth: An introduction to Physical Geology (11th ed)	Tarbuck, EJ & Lutgens, FK	Pearson
		Laboratory Manual in Physical Geology (10th ed)	Busch, RM	Pearson
	124	Geography: An integrated approach (4th ed)	D Waugh	Nelson
Rekenaarweten-skap / Computer Science	114 144	Introduction to Programming in Java: An In-terdisciplinary Approach: International Edition	R Sedgewick & K Wayne	Pearson
Sielkunde / Psychology	114 144	Psychology: Themes and Variations (2nd ed)	Weiten	Cengage
Wiskunde / Mathematics	114	Calculus (8th ed)	J Stewart	Cengage
	144	Linear Algebra: A modern Introduction (4th ed)	David Poole	Cengage
	Bio 124	An Introduction to Applied Calculus for Social and Life Sciences	Nyabadza & Wessels	Juta
Waarskynlikheids-leer en Statistiek / Prob. Theory and Statistics	114 144	A First Course in Probability (9th ed)	Sheldon Ross	Prentice-Hall

Ontmoet jou programkoördineerders

Biodiversiteit & Ekologie/ Biodiversity & Ecology
Prof Theresa Wossler
wossler@sun.ac.z
021 808 3160
Natuurwetenskappe Gebou K:2015

Aardwetenskap / Earth Science
Dr Jodie Miller
jmiller@sun.ac.z
021 808 3121
Kamer van Mynwese Gebou K:2007

Molekulêre Biologie & Biotegnologie / Molecular Biology & Biotechnology
Prof Rouvay Roodt-Wilding
roodt@sun.ac.z
021 808 5831
JC Smuts Gebou K:A213

GeoInformatika / GeoInformatics
Dr Jaco Kemp
jkemp@sun.ac.za
021 808 9147
Kamer van Mynwese Gebou K:1030C

Menslike Lewensweten-skappe/Human Life Sciences
Prof Anna-Mart Engelbrecht
ame@sun.ac.z
021 808 4573
Mike de Vries Gebou K:2050

Fisiese Wetenskappe / Physical Sciences
Fisika-rigtings / Physics directions
Prof Shaun Wyngaardt
shaunmw@sun.ac.z
021 808 3379
Merensky Gebou K:1018

Sportwetenskap/ Sport Science
Dr Suzanne Ferreira
adapt2move@sun.ac.za
021 808 4722
Sportwetenskap Gebou K:410

Chemie-rigtings / Chemistry directions
Prof Catharine Esterhuysen
ce@sun.ac.z
021 808 3345
De Beers Gebou K:1007

Wiskundige Wetenskappe / Mathematical Sciences
Prof Florian Breuer
fbreuer@sun.ac.za
021 808 3288
Wiskundige Wetenskappe en Be-dryfsielkunde Gebou K: 1008C

Meet your programme coordinators

Alles oor roosters

Klas-, toets-en eksamenroosters

Die klas-, toets- en eksamenroosters is slegs op die studenteportaal by **www.mymaties.com** beskikbaar. Maak asseblief seker dat jy 'n kopie van jou **eksamen- en klasroosters** hier kry voor **Maandag 30 Januarie 2017**, die dag waarop klasse begin, sodat jy weet waar en wanneer jy klas het.

Klasroosters en groepindelings

Sommige eerstejaarsmodules word in meer as een groep verdeel, byvoorbeeld Chemie 124 (Groep 1) en Chemie 124 (Groep 2). Hierdie groepe se klas-roosterindelings verskil. Maak dus seker dat jy vanaf **Donderdag 26 Januarie 2017** jou **eie spesifieke groepsindelings** aflaai vanaf die studenteportaal **www.mymaties.com**.

Jy **mag nie** van groep verander nie.

All about timetables

Class, test and examination timetables

The class, test and examination timetables will only be available on the student portal at **www.mymaties.com.** Please ensure that you obtain a copy and determine your **class, as well as exams timetable** before **Monday 30 January 2017** when classes start.

Timetables and group arrangements

Some first year modules are divided into more than one group, for example Chemistry 124 (Group 1) and Chemistry 124 (Group 2). The timetables of these groups will differ. Please ensure that you download your personal and **specific group allocations** from the student portal **www.mymaties.com**. It will be available as from **Thursday 26 January 2017.**

You **are not allowed** to change groups.

Hulp danksy SUNLearn

SUNLearn is n aanlyn-platform waardeur gemengdeleer ondersteun word. Daar is 'n spesiale blad vir elkeen van jou modules. Dit is baie belangrik om gereeld daar aan te teken.

Gaan na: **http://learn.sun.ac.za** en teken aan met jou gebruiklike wagwoord en gebruikersnaam.

Dosente gebruik SUNLearn om belangrike inligting te kommunikeer en lesingmateriaal beskikbaar te stel. Dit kan ook gebruik word om aanlyn-assesserings af te lê en om klasaktiwiteite te doen. Moduleraamwerke is ook hier beskikbaar.

*Sommige modules gebruik egter hulle eie webbladsye in plaas van SUNLearn.

Klasindelings WKV 172

Dit is baie belangrik dat jy die **Wetenskap-kommunikasievaardigheid** (WKV) klasse sal bywoon op grond van jou spesifieke groepindeling. Dit geld natuurlik ook vir al die ander vak- en module-indelings.

Tydens die eerste WKV-klas sal jy vasstel in watter kleiner groep jy ingedeel is. Jy **MOET** vir die res van die jaar hiervolgens klas bywoon. Dit is dus baie belangrik om die eerste WKV-klas van die studiejaar by te woon!

Wie kan jy kontak vir hulp?

Me Zaan Bester 021 808 2695 of zbester@sun.ac.za

Class groupings SCS 172

It is very important to attend your classes in **Scientific Communication Skills** (SCS) according to your specific group allocation. This is just as important for all the other subject and module group allocations.

During the first SCS class, you will also be informed to which smaller group you have been assigned to. You **MUST** attend classes based on this grouping for the rest of the year. It is therefore very important that you attend your first SCS class of the academic year!

Who can you contact for support?

Ms Zaan Bester 021 808 2695 or zbester@sun.ac.za

Support through SUNLearn

SUNLearn is an online platform where blended learning is supported. There is a special page for each of your modules. It is very important to sign on regularly.

Visit **http://learn.sun.ac.za** and use your regular password and username to sign in.

Lecturers use SUNLearn to communicate important information and to make class material available. It can also be used for online assessments and class activities. Module frameworks are also available here.

*Some modules however, make use of their own web pages in stead of SUNLearn.

Steun vir studente

Waardevolle advies

Me. Wilma Wagener is ons fakulteit se Akademiese Koördineerder. Vir navrae oor programme, waar om hulp te kry, of enige navrae oor Verlengde Graadprogramme (VGP), kontak haar by ww@sun.ac.za of 021 808 3063. Of besoek haar in die AI Perold Gebou K:2012.

Maak jouself ook vertroud met al die ander hulpstrukture binne die US, en benut dit, veral die hulp wat gebied word deur die Sentrum vir Studentevoorligting en Ontwikkeling (SSVO).

Gaan na http://www.sun.ac.za/english/learning-teaching/student-affair vir meer inligting oor die steundienste tot jou beskikking.

Hoekom is jou vroeë assesseringspunte belangrik?

Teen Maart/April vanjaar sal jy reeds vorderingsuitslae oor jou eerste ses weke ontvang. Alhoewel hierdie uitslae nie noodwendig 'n aanduiding van jou toekomstige punte is nie, gee dit jou egter reeds 'n aanduiding van waar jy moontlik probleme ondervind.

. Kry **betyds** hulp, daar is heelwat steunprogramme waarby jy kan baatvind. Onthou, wanneer dit later kom by kwessies rondom hertoelating, is dit belangrik om te kan wys dat jy self oplossings vir jou probleme probeer kry het deur van hulpstrukture gebruik te maak.

Hoe gemaak as jy sukkel met 'n module?

Jou eerste stap is om met jou spesifieke dosent te gesels. As jy nie die vrymoedigheid het om op jou eie na 'n dosent te gaan nie, vra gerus 'n lid van die Natuurwetenskappe Studentekomitee (NSK) om saam te gaan.

Indien jou probleem nie na wense opgelos word nie, kan jy 'n afspraak maak om met die hoof van die tuisdepartement waarin die module aangebied word, te gaan gesels. (Bv Biologie se tuisdepartement is die Departement Plant- en Dierkunde).

Wat as jy 'n module wil staak of verander?

Dit is baie belangrik dat jy die voorgeskrewe kurrikulum sal volg wat in die Natuurwetenskappe Jaarboek (Deel 5) uiteengesit word vir jou program, sodat jy vir jou graad kan kwalifiseer.

- Indien jy enige van jou keusemodules wil verander of 'n module wil staak, moet jy eers goedkeuring van die Fakulteit kry. Spreek me. Wilma Wagener, akademiese koördineerder hieroor in die AI Perold Gebou K:2012.

- Indien daar fout is met jou registrasie, gaan spreek mnr. Bevin Abels, ons fakulteitsekretaris, by Admin A K:2027.

Onthou: indien jy gedurende die jaar besluit om enige modules te staak of te verander, moet jy dit in die eerste semester voor **10 Februarie**, en in die tweede semester voor **28 Julie** doen. Let daarop dat wanneer jy 'n module staak, dit eintlik daarop neerkom dat jy daardie module "sak".

Hoe gemaak as jy afwesig is van klas, 'n toets of eksamen?

Volg eerstens die riglyne wat in elke module se moduleraamwerk uiteengesit is. Andersins moet jy die dosent wat die betrokke module aanbied, sonder versuim kontak indien jy deur siekte of weens ander geldige redes verhinder word om verpligte klaswerk uit te voer.

Die volgende dokumente moet ook by die betrokke departement of spesifieke dosent ingedien word: Indien jy afwesig was weens siekte, moet 'n siektesertifikaat ingehandig word wat uitgereik is gedurende die siekte. Andersins moet ander toepaslike dokumente soos dood-sertifikate of ondersteunende briewe jou afwesigheid kan verduidelik.

Indien jy vooraf weet dat jy afwesig gaan wees, moet 'n skriftelike aansoek om verlof tot afwesigheid by die spesifieke departement of dosent ingedien word, tesame met toepaslike bewyse. Moet asb. **NIE** enige van bogenoemde dokumentasie by die Dekaansafdeling indien nie.

Vir vollledige inligting hieroor, lees "Afwesigheid van klasse en/of toetse" in die Algemene Jaarboek Deel 1, in die afdeling "Toelating en Registrasie".

Wat as jy van program ("kursus") binne die Fakulteit Natuurweten-skappe wil verander?

Jy moet aansoek doen om goedkeuring as jy van program wil verander. Vir advies hieroor, kontak me Wilma Wagener, akademiese koördineerder, in die AI Perold Gebou K:2012.

Voltooi die versoekvorm aanlyn by http://learn.sun.ac.z. Kies op hierdie blad die "module" "Voorgraadse Studente in Natuur-wetenskappe / Module- en Programversoeke / Module, Programme Requests.

Besoek ons webblad

Gaan na ons fakulteitswebblad by **www.sun.ac.za/scienc**. Die afdeling "Vir Studente" is veral handig. Hier kan jy onder meer lees oor geskatte **boeke- en studiegelde**, dekaansvergunningseksamens, of sien watter **nagraadse navorsingsgeleenthede** daar is. Jy kan ook 'n kopie van ons **Jaarboek** hier aflaai.

Volg ons op Twitter @scienceSUN

Support for students

Helpful advice

Ms Wilma Wagener is our faculty's Academic Coordinator. For enquiries with regard to programmes, where to get assistance, or any enquiries about Extended Degree Programmes (EDPs), contact her at ww@sun.ac.za or 021 808 3063. Or visit her at the AI Perold Building, R:2012.

You should also familiarise yourself with all the support structures the SU has to offer and make use of them, especially the Centre for Student Guidance and Development.

Go to http://www.sun.ac.za/english/learning-teaching/student-affair for more information on the support services available.

Why are your early assessment marks significant?

By March/April you will receive progress marks on your first six weeks. Although this is not necessarily a precise indication of your future marks, it does serve as a valuable warning mechanism to identify possible problem areas.

Get help **as soon** as you experience difficulties. There are various support structures in place to assist you. Remember, when issues such as readmission come into play, it is important to show that you have made an effort to find help by using the support structures.

What to do when you struggle with a module

Your first step should be to speak to your lecturer. If you do not feel comfortable enough to go to a lecturer on your own, feel free to ask a member of the Science Student Committee (SSC) to escort you.

If this does not solve your problem, you can make an appointment to speak to the head of the home department responsible for the teaching of the specific module. (The home department of Biology is, for example, the Department of Botany and Zoology).

What if you want to change or cancel a module?

It is very important that you adhere to the prescribed curriculum for your specific programme as explained in the Faculty of Sciences Calendar (Part 5) in order to qualify for your degree.

- If you want to change one of your elective modules or want to cancel a module, you need approval from the Faculty. Contact Ms Wilma Wagener, academic coordinator in this regard at the AI Perold Building, R:2012.
- If you detect a problem with your registration, contact Mr Bevin Abels, the Faculty Officer in Admin A, R:2027.

Remember, if you wish to change or cancel modules during the academic year, you should do so before **10 February** (first semester) and before **28 July** (second semester). Be careful – cancelling a module actually reflects as "failing" that module.

What if you cannot attend a class, test or exam?

Firstly, follow the guidelines as explained in the specific module framework. Otherwise you have to contact the lecturer concerned as soon as possible should you be unable to carry out prescribed classwork because of illness or other valid reasons.

You also have to hand in the following documents at the specific department or to the lecturer: If you were absent on account of illness, you have to provide a medical certificate which was issued during your illness. Or you have to provide other applicable documents such as death certificates or supporting letters to qualify your absence.

If you know beforehand that you will be absent, you have to apply for leave of absence in writing from the specific Department or lecturer and supply supportive evidence. Please do **NOT** hand in any of abovementioned documents at the Dean's office.

For detailed guidelines in this regard, read "Absence from classes and/or tests" in the General Calendar Part 1, in the section "Admission and Registration".

What if you want to change programmes ("courses") within the Faculty of Science?

You have to apply for official approval before you can change programmes. For advice on this, contact ms Wilma Wagener, academic coordinator, in die AI Perold Building R:2012.

Complete the request form online at http://learn.sun.ac.z. On this page, choose the "module" Undergraduate Students in Science / Module- en Programversoeke / Module, Programme Requests.

Visit our website

Browse through our official Faculty website at **www.sun.ac.za/science**. The section "for students" is especially handy and contains information on the estimated **book and study fees,** dean's concession examinations, and interesting **postgraduate research opportunities**. Here you can also download a copy of the **Faculty Calendar**.

Follow us on Twitter @scienceSUN

Heads of Departments

Aardwetenskappe / Earth Sciences

Prof Roy Roychoudhury
021 808 3219

Biochemie / Biochemistry

Prof Johann Rohwer
021 808 5862

Chemie & Polimeer-wetenskap / Chemistry & Polymer Science

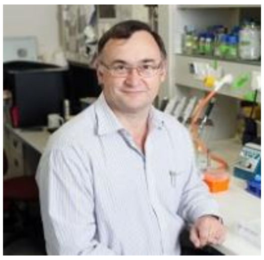
Prof Peter Mallon
021 808 3172

Fisika / Physics

Prof Erich Rohwer
021 808 3391

Fisiologiese Weten-skappe / Physiological Sciences

Prof Anna-Mart Engelbrecht
021 808 3146



Mikrobiologie / Microbiology

Prof Emile van Zyl
021 808 5847

Plant- en Dierkunde / Botany & Zoology

Prof Conrad Matthee
021 808 3236

Wiskundige Wetenskappe / Mathematical Sciences

Prof Ingrid Rewitzky
Head of department
021 808 3282

Prof Stephan Wagner
Head: Mathematics
021 808 3269

Prof Jaco Geldenhuys
Head: Computer Science
021 808 4232

Prof Francois Smit
Head: Applied Mathematics
021 808 4219

Die NSK werk vir jou

Die **Natuurwetenskappe Studentekomitee (NSK)** streef daarna om studente in die Fakulteit Natuurwetenskappe op alle vlakke te ondersteun. Ons komitee is 'n waardevolle skakel tussen jou as Natuurwetenskapstudent en die fakulteit. Ons as lede van die NSK sal jou met raad en daad bystaan sodat jy jou studies in hierdie fakulteit so veel as moontlik kan geniet.

The NSC works for you

The Natural Science Student Committee (NSC) aims to provide students in the Faculty of Science with support on all levels of student life. Our committee is giving assistance in respect of liaison between the science student and the faculty. The members of the NSC will advise and assist you – all in an effort to ensure that you have a great experience while studying in this faculty.

Follow us on Facebook for events and important dates

www.facebook.com/Stellenbosc UniversityScience

Kalnisha Govender
Chairperson

Melt Hugo
Vice-chairperson

Taariq Tayob
Treasurer

Desren Jacobs
Marketing & technical advisor

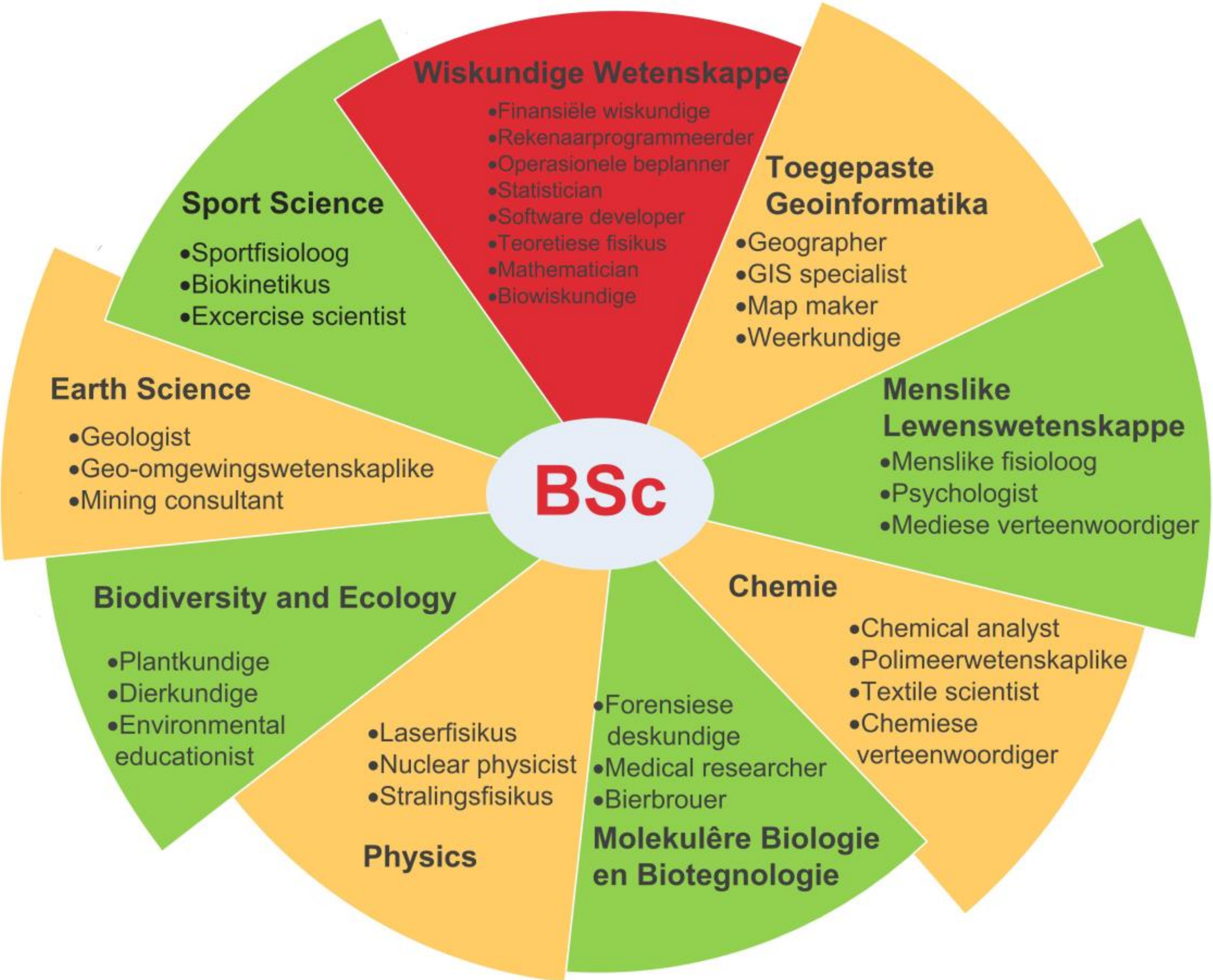
Felicia Kubheka
Student Affairs

Shannon Swart
Secretary

Lucia Daly
Marketing & technical Advisor)

Tasneem Adams
Social

Winnie Chabaari
Postgraduate Students


Wiskundige Wetenskappe
•Finansiële wiskundige
•Rekenaarprogrammeerder
•Operasionele beplanner
•Statistician
•Software developer
•Teoretiese fisikus
•Mathematician
•Biowiskundige
Toegepaste Geoinformatika
•Geographer
•GIS specialist
•Map maker
•Weerkundige
Menslike Lewenswetenskappe
•Menslike fisioloog
•Psychologist
•Mediese verteenwoordiger
Chemie
•Chemical analyst
•Polimeerwetenskaplike
•Textile scientist
•Chemiese verteenwoordiger
Molekulêre Biologie en Biotegnologie
•Forensiese deskundige
•Medical researcher
•Bierbrouer
Physics
•Laserfisikus
•Nuclear physicist
•Stralingsfisikus
Biodiversity and Ecology
•Plantkundige
•Dierkundige
•Environmental educationist
Earth Science
•Geologist
•Geo-omgewingswetenskaplike
•Mining consultant
Sport Science
•Sportfisioloog
•Biokinetikus
•Excercise scientist
BSc

Notes

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