

FROM THE DEAN

Welcome on the beautiful Matie campus! As a student in the Faculty of Science you are now facing new challenges. Our country has a shortage of experts in mathematics, 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.

I hope you feel at home soon. All the best with your new life as a Matie.

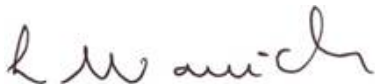
VAN DIE DEKAAN

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.

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 wetenskap-student in 'n kritiese wetenskaplike, kreatiewe denker en probleemoplosser sal ontwikkel.

Ek hoop jy voel gou tuis. Alles van die beste vir jou nuwe lewe as 'n Matie.

Kind regards / Vriendelike groete



Prof. Louise Warnich
Dean: Faculty of Science
Dekaan: Fakulteit Natuurwetenskappe



Who to contact in the Faculty / Kontakpersone in die Fakulteit



**Director: Faculty management /
Direkteur: Fakulteitsbestuur /**

Mariëtta van den Worm
021 808 3760 mvdworm@sun.ac.za
Al Perold Gebou / Building K:2013
*For help with programmes and enquiries, advice,
changes and support for first years (interim)*



**Coordinator: Academic and Student Affairs /
Koördineerder: Akademiese en Studentesake**

Aatika Valentyn
021 808 3931 aatika@sun.ac.za
Al Perold Gebou / Building K:2012
*For enquires about change of programmes or
modules*



Faculty administrator / Fakulteitsadministrateur

Bevin Abels
021 808 4832 bpa@sun.ac.za
Admin A K:2027
For registration



Computer usage / Rekenaargebruik

Ilse de Kock
021 808 2682 idk@sun.ac.za
Al Perold Gebou / Building K:2016b



Dean's secretary / Sekretaresse van die dekaan

Suzette Els
021 808 3072 se@sun.ac.za
Al Perold Gebou / Building K:2014

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.com. Hierdie diens is vanaf **15 Januarie 2020** beskikbaar:

- SLEGS studente wat die Nasionale Senior Sertifikaat in die SA skoolstelsel of die skooleindsertifikaat van die Onafhanklike Eksamenraad verwerf het, sal elektronies kan 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 27 Januarie 2020** 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 van die **Natuurwetenskappe Jaarboek (Deel 5)** gebruik.

Kry 'n kopie van die 2020 Jaarboek by:
www.sun.ac.za/science onder "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.com. This service is available from **15 January 2020**:

- ONLY students who have obtained the National Senior Certificate of the SA school system or the Independent Examination Board school-leaving certificate, will be able to 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 27 January 2020** between 13:30 and 15:00 to register and to receive 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 of the **Science Calendar (Part 5)** as a reference. Obtain a copy of the 2020 Calendar from www.sun.ac.za/science, "For Students" or a **hard copy** from the **Info Kiosk in Admin A**.

Programme vir 2020

Program	Stroom	Eerstejaars-kurrikulum
Biologiese Wetenskappe		
Biodiversiteit & Ekologie		1
Molekulêre Biologie & Biotegnologie		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
	Materiaaltegnologie	3,5 of 6
Fisika	Kernfisika, Stralings- en Gesondheidsfisika, *Laserfisika (Fisiese Rigting)	5, 6 of 7
	*Laserfisika (Biologiese Rigting)	3
	Teoretiese Fisika	7
Aardwetenskap	Toegepaste Aardwetenskap	spesifiek*
	Geo-omgewingswetenskap	
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*
	Abstrakte Wiskunde	spes variasies van 7*
Interdisiplinêre aanbod		
Interdisiplinêre aanbod	Biomediese Wiskundige Wetenskappe Toegepaste Medisinale Chemie Bioinformatika en Berekeningsbiologie	spesifiek*

* sien Jaarboek 2020 Deel 5
Natuurwetenskappe

Programmes for 2020

Programme	Stream	1st 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
	Materials Technology	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	Applied Earth Science	specific*
	Geo-environmental Science	
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*
	Abstract Mathematics	spec variations of 7*
Interdisciplinary Offering		
Interdisciplinary offering	Biomedical Mathematical Sciences Applied Medicinal Chemistry Bioinformatics and Computational Biology	specific*

* see Calendar 2020 Part 5 Science

Eerstejaarskurrikula 2020

Algemene toelatingsvereistes

- Minimum van 65% gemiddeld in skoolleidsertifikaat.
- Afrikaans of Engels (Huisstaal of Eerste Addisionele Taal) 4 (50%)
- Aflegging van NNT's
- *Sien tabelle hieronder vir spesifieke toelatingsvereistes

★ Gebruik hierdie blad as kontrolelys vir korrekte registrasie

Kurrikulum 1	
<i>Wiskunde 5 & Fisiese Wetenskappe 4</i>	
Biologie	124 & 144 & 154
Chemie	124 & 144
Fisika Bio	134 & 154
Wiskunde Bio	124
Wetenskap in Konteks	178

Kurrikulum 2	
<i>Wiskunde 5 & Fisiese Wetenskappe 4</i>	
Biologie	124 & 154
Chemie	124 & 144
Fisika Bio	134 & 154
Wiskunde Bio	124
Wetenskap in Konteks	178
Sielkunde	114 & 144

Kurrikulum 3	
<i>Wiskunde 6 & Fisiese Wetenskappe 4</i>	
Biologie	124 & 144 of 154
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Wetenskap in Konteks	178

Kurrikulum 4	
<i>Wiskunde 6 & Fisiese Wetenskappe 4</i>	
Geo-omgewingswetenskap	124 & 154
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Wetenskap in Konteks	178

Kurrikulum 5	
<i>Wiskunde 6 & Fisiese Wetenskappe 4</i>	
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Rekenaarwetenskap	114 & 144
Wetenskap in Konteks	178

Kurrikulum 6	
<i>Wiskunde 6 & Fisiese Wetenskappe 4</i>	
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Waarskynlikheidsleer & Statistiek	114
Toegepaste Wiskunde	144
Wetenskap in Konteks	178

Kurrikulum 7	
<i>Wiskunde 6 & Fisiese Wetenskappe 4 (*indien Fisika gevolg word)</i>	
Fisika	114 & 144
Wiskunde	114 & 144
Rekenaarwetenskap	114 & 144
Waarskynlikheidsleer & Statistiek	114
Toegepaste Wiskunde	144
Wetenskap in Konteks	178

Sportwetenskap	
<i>Wiskunde 5 & Fisiese Wetenskappe 4</i>	
Biologie	124 & 154
Chemie	124 & 144
Fisika Bio	134 & 154
Wiskunde Bio	124
Kinesiologie	162 & 182
Wetenskap in Konteks	178

GeoInformatika	
<i>Wiskunde 6 OF *Wiskunde 5 (indien Wisk Bio & Fisika Bio gevolg word) & Fisiese Wetenskappe 4</i>	
Geo-omgewingswetenskap	124 & 154
Wetenskap in Konteks	178
EN	
Wiskunde	114 & 144
Fisika	114 & 144
Rekenaarwetenskap	114 & 144
OF	
*Wiskunde Bio	124
*Fisika Bio	134 & 154
Biologie	124
Chemie	124 & 144

Wiskundige Wetenskappe
<i>Wiskunde 6 & Fisiese Wetenskappe 4 (indien Fisika & Chemie gevolg word)</i>
Variasies van Kurrikulum 7 soos deur stroom bepaal

Aardwetenskap	
<i>Wiskunde 6 OF *Wiskunde 5 (indien Wisk Bio en Fisika Bio gevolg word) & Fisiese Wetenskappe 4</i>	
Aardwetenskap Veldvaardigheid	172
Chemie	124 & 144
Geo-omgewingswetenskap	124 & 154
Wetenskap in Konteks	178
EN	
Fisika	114 & 144
Wiskunde	114 & 144
OF	
*Fisika Bio	134 & 154
*Wiskunde Bio	124
Biologie	124
OF	
*Fisika Bio	134 & 154
Wiskunde	114 & 144

Interdissiplinêre Aanbod
<i>Wiskunde 6 & Fisiese Wetenskappe 4</i>
Stroomspesifieke kurrikulum

Verlengde Graadprogramme Jaar 1	
<i>Spesiale keuring indien nie voldoen aan hoofstroom toelatingsvereistes</i>	
Biologie	146
Chemie	176
Universiteitspraktyk in die Natuurwetenskappe	176
Fisika	176
Rekenaarvaardigheid	176
Wiskunde OF Wiskunde Bio	186
Wetenskap-komm. vaardigheid	116 & 146

*Sien Natuurwetenskappe
Jaarboek Deel 5 2020

First Year Curricula for 2020

General Admission Requirements

- Minimum 65% average in the school-leaving certificate.
 - Afrikaans or English (Home Language or First Additional Language) 4 (50%)
 - Sit NBTs
 - *See tables below for specific admission requirements
- ★ Use this as a checklist to ensure that you register correctly.

Curriculum 1	
<i>Mathematics 5 & Physical Science 4</i>	
Biology	124 & 144 & 154
Chemistry	124 & 144
Physics Bio	134 & 154
Mathematics Bio	124
Science in Context	178

Curriculum 3	
<i>Mathematics 6 & Physical Science 4</i>	
Biology	124 & 144 or 154
Chemistry	124 & 144
Physics	114 & 144
Mathematics	114 & 144
Science in Context	178

Curriculum 5	
<i>Mathematics 6 & Physical Science 4</i>	
Chemistry	124 & 144
Physics	114 & 144
Mathematics	114 & 144
Computer Science	114 & 144
Science in Context	172

Curriculum 2	
<i>Mathematics 5 & Physical Science 4</i>	
Biology	124 & 154
Chemistry	124 & 144
Physics Bio	134 & 154
Mathematics Bio	124
Science in Context	178
Psychology	114 & 144

Curriculum 4	
<i>Mathematics 6 & Physical Science 4</i>	
Geo-environmental Science	124 & 154
Chemistry	124 & 144
Physics	114 & 144
Mathematics	114 & 144
Science in Context	178

Curriculum 6	
<i>Mathematics 6 & Physical Science 4</i>	
Chemistry	124 & 144
Physics	114 & 144
Mathematics	114 & 144
Probability Theory and Statistics	114
Applied Mathematics	144
Science in Context	178

Curriculum 7	
<i>Mathematics 6 & Physical Science 4 (if Physics is taken)</i>	
Physics	114 & 144
Mathematics	114 & 144
Computer Science	114 & 144
Probability Theory & Statistics	114
Applied Mathematics	144
Science in Context	172

Sport Science	
<i>Mathematics 5 & Physical Science 4</i>	
Biology	124 & 154
Chemistry	124 & 144
Physics Bio	134 & 154
Mathematics Bio	124
Kinesiology	162 & 182
Science in Context	178

Mathematical Sciences	
<i>Mathematics 6 & Physical Science 4 (if Physics and Chemistry are taken)</i>	
Variations in Curriculum 7 as determined by stream	

Earth Science	
<i>Mathematics 6 OR *Mathematics 5 (if Maths Bio & Physics Bio are taken) & Physical Science 4</i>	
Earth Science Field Skills	172
Chemistry	124 & 144
Geo-environmental Science	124 & 154
Science in Context	178
AND	
Physics	114 & 144
Mathematics	114 & 144
OR	
*Physics Bio	134 & 154
*Mathematics Bio	124
Biology	124
OR	
*Physics Bio	134 & 154
Mathematics	114 & 144

Geoinformatics	
<i>Mathematics 6 OR *Mathematics 5 (if Maths Bio & Physics Bio are taken) & Physical Science 4</i>	
Geo-environmental Science	124 & 154
Science in Context	178
AND	

Mathematics	114 & 144
Physics	114 & 144
Computer Science	114 & 144
OR	
*Mathematics Bio	124
*Physics Bio	134 & 154
Biology	124
Chemistry	124 & 144

Interdisciplinary Programme	
<i>Mathematics 6 & Physical Sciences 4</i>	
Stream specific curricula	

Extended Degree Programme Year 1	
<i>Special approval if main programme requirements have not been achieved</i>	
Biology	146
Chemistry	176
University Practice in the Natural Sciences	176
Physics	176
Computer Skills	176
Mathematics OR Mathematics Bio	186
Scientific Comm. Skills	116 & 146
*See Natural Sciences Calendar Part 5 2020	

Verstaan die terminologie

Wie doen wat?

Rektor - Hoof van die Universiteit. Ons rektor is prof. Wim de Villiers.

Dekaan - Hoof van 'n fakulteit. Die Fakulteit Natuurwetenskappe se dekaan is prof. Louise Warnich.

Departementele voorsitter - Hoof van 'n departement (bv. Fisika of Mikrobiologie). 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, 178?

Elke vak het 'n bepaalde **5-syferidentifikasiekode** 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, 124** dui op die jaar waarin dit gevolg word:

- 'n **1** staan vir die eerste jaar
- 'n **2** staan vir die tweede jaar
- 'n **3** 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 TWEDE semester
- Syfers 7, 8 of 9 dui op 'n JAARmodule

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 program.

Die kredietwaarde is 'n riglyn van hoeveel tyd jy gedurende die jaar aan die bepaalde module moet spandeer. 1 krediet = minimum 10 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** (0,5 HEMIS en 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 dadelik hulp indien jy probleme ondervind.

Wat is 'n moduleraamwerk?

Elke module sal 'n **moduleraamwerk** verskaf wat jy **MOET** lees. Hierin is inligting soos die module se taalspesifikasie, die kontakbesonderhede van dosente, die module-inhoud, hoe punte bereken word, riglyne vir bywoning van klasse. 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 = lesing** (50 min)
- **P = praktikum** (50 min) ['n praktikasessie is gewoonlik 3P]
- **T = tutoriaalsessie** (50 min)

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. Sien die Fakulteit se Taalimplementeringsplan by www.sun.ac.za/science onder Vir Voorgraadse studente

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, 178 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 124** indicates the year in which it is followed:

- 1 indicates the first year
- 2 indicates the second year
- 3 the third year

The **second number 124** 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 124** 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. 1 credit = minimum 10 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** (0,5 HEMIS and 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 immediately when you experience any problems.

What is a module framework?

Each module will provide a **module framework** that you **MUST** read. This contains information such as the language specification of the module, contact details of lecturers, module content, how marks are

calculated and guidelines on class attendance. 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 = lecture** (50 min)
- **P = practical** (50 min) [a practical session is usually 3P]
- **T = 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. See the Faculty's Language Implementation Plan at www.sun.ac.za/science under For Undergraduate students

Modules, module coordinators, office numbers and contact details

Biologie / Biology			
124,144 154 & 146	Dr M Mouton	2022 Natuurwetenskappe	808 2717 marnel@sun.ac.za
Chemie / Chemistry			
124	Dr T le Roex	1041 De Beers	808 3343 chemone@sun.ac.za
144	Dr M Lutz	2010 Polimeerwetenskap	808 9251 chemone@sun.ac.za
176	Dr E Botha	3002 De Beers	TBC
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 BIS van der Ventel	1019 Merensky	808 3388 bventel@sun.ac.za
176	Mnr G Andrews	0058 Merensky	808 2522 glandrews@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			
124	Dr MA Spocter	2033A Kamer van Mynwese	808 3095 mspocter@sun.ac.za
154	Dr R Heyn	1037A Kamer van Mynwese	808 3116 rheyn@sun.ac.za
Rekenaarwetenskap /Computer Science			
114	Dr TL Grobler	A510 Alg Ing wese	808 4232 tlgrobler@sun.ac.za
144	TBC (new appointment)	Alg Ing wese	TBC
176	Mnr I Govender	3017 Natuur- wetenskap	808 3099 ieg@sun.ac.za

Wiskunde / Mathematics			
114 & 144	Dr K Howell	1008B Wiskundige Wetenskappe & Bedryfsielkunde Gebou	808 3281 kthowell@sun.ac.za
Bio 124	Me L Wessels	1009B Wiskundige Wetenskappe & Bedryfsielkunde Gebou	808 3852 lwessels@sun.ac.za
186	Dr J Masuret	3005 Wiskundige Wetenskappe & Bedryfsielkunde Gebou	808 3272 jmasuret@sun.ac.za
176	Me EJ Burger	3003 Wiskundige Wetenskappe & Bedryfsielkunde Gebou	808 2628 ejburger@sun.ac.za
Waarskynlikheidsleer & Statistiek / Probability Theory & Statistics			
114	Prof H Touchette	A412 Alg Ingwese	808 4571 htouchette@sun.ac.za
114	Me M Steyn	A219 Alg Ingwese	808 4219 melisesteyn@sun.ac.za
Toegepaste Wiskunde / Applied Mathematics			
144	Dr H Diedericks	A411 Alg Ingwese	808 4222 hardus@sun.ac.za
144	Me C Stander	A219 Alg Ingwese	808 4219 cornelstander@sun.ac.za
Sielkunde / Psychology			
114	Dr B Coetzee	2051 Wilcocksgebou	808 3979 bronwyne@sun.ac.za
144	Dr R Roomaney	2019 Wilcocksgebou	808 3973 rizwanaroomaney@sun.ac.za
University Practice in the Natural Sciences			
176	Dr M Mouton	2022 Natuurwetenskappegebou	808 2717 marnel@sun.ac.za
Wetenskapkommunikasievaardigheid / Scientific Communication Skills			
116 & 146	Me Y Coetsee	Bosmanstraat 7	808 2695 yc@sun.ac.za
Wetenskap in Konteks / Science in Context 178			
178	Me A Valentyn	2012 AI Peroldgebou	808 3931 aatika@sun.ac.za

Modules	No	Titel Title	Ed	Outeur Author	Uitgewers Publisher
Biologie Biology	124 144 154	Biology: The Dynamic Science	5	Russel PJ, Hertz PE,McMillan B.	Brooks/ Cole Cengage
Chemie Chemistry	124	Chemistry, The Central Science: A Broad Perspective	3	Brown, Le may, Bursten, Murphy, Langford, Sagatys	Pearson
	144	Chemistry, The Central Science: A Broad Perspective	3	Brown, Le may, Bursten, Murphy, Langford, Sagatys	Pearson
Fisika Physics	114 144	Sears and Zemensky's University Physics	15	HD Young & RA Freedman	Addison Wesly
	Bio 134 154	Physics	3	Giamballista/ Richardson	McGraw- Hill Education
Fisiologie Physiology	114 144	Essentials of Human Anatomy and Physiology	12	Elaine E Marieb	Pearson
Geo- omgewings- wetenskap Geo- environmen- tal Science	154	Earth: An introduction to Physical Geology	12	Tarback, EJ & Lutgens, FK (recommended)	Pearson
		Laboratory Manual in Physical Geology		VitalSource eBook, compiled by R Heyn	Pearson
	124	Geography: An integrated approach	4	D Waugh	Nelson
Rekenaar- wetenskap Computer Science	114 144	Introduction to Programming in Java: An Interdisciplinary Approach: International Edition	2	R Sedgewick & K Wayne	Pearson
Sielkunde Psychology	114 144	Psychology: Themes and Variations	3	Weiten	Cengage
Wiskunde Mathematics	114	Calculus	8	J Stewart	Cengage
	144	Linear Algebra: A modern Introduction	4	David Poole	Cengage
	Bio 124	An Introduction to Applied Calculus for Social and Life Sciences		Nyabadza & Wessels	Juta
Waarskynlik- heidsleer en Statistiek Prob. Theory and Statistics	114 144	A First Course in Probability	10	Sheldon Ross	Prentice- Hall

Ontmoet jou programkoördineerders

Meet your programme coordinators

Biodiversiteit & Ekologie / Biodiversity & Ecology

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Building K:2015



Aardwetenskap / Earth Science

Prof Jodie Miller
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021 808 3121
Chamber of Mines
Building K:2007



Molekulêre Biologie & Bioteegnologie / Molecular Biology & Biotechnology

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Menslike Lewenswetenskappe / Human Life Sciences

Prof Anna-Mart
Engelbrecht
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021 808 4573
Mike de Vries
Building K:2050



Fisika / Physics

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Merensky Building
K:1018



Chemie / Chemistry

Prof Catharine
Esterhuysen
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021 808 3345
De Beers Building
K:1007



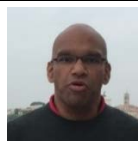
Sportwetenskap / Sport Science

Ms K Dickie
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Sport Sciences
Building K:337



Geoinformatika/Geoinformatics

Mr NK Poona
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Chamber of Mines
Building 1030D



Wiskundige Wetenskappe / Mathematical Sciences

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Mathematical Sciences &
Industrial Psychology Building
K:1016B



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 3 Februarie 2020**, die dag waarop klasse begin, sodat jy weet waar en wanneer jy klas het.

Klasroosters en groeppindelings

Sommige eerstejaarsmodules word in meer as een groep verdeel, byvoorbeeld Chemie 124 (Groep 1) en Chemie 124 (Groep 2). Hierdie groepe se klasroosterindelingen verskil. Maak dus seker dat jy vanaf **Donderdag 30 Januarie 2020** jou **eie spesifieke groeppindelings** 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 3 February 2020** 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. Ensure that you download your personal and **specific group allocations** from the student portal **www.mymaties.com**. It will be available from **Thursday 30 January 2020**.

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

Inligting oor SUNLearn

SUNLearn is die Universiteit se leerbestuurstelsel. Dit word gebruik om die gemengdeleer-benadering wat by die Universiteit gevolg word, te fasiliteer. Daar is 'n spesiale blad vir elke module waarvoor jy geregistreer is. Dit is baie belangrik om gereeld daar aan te teken, aangesien dosente dit gebruik om belangrike inligting te kommunikeer. Moduleraamwerke en lesingmateriaal word ook op SUNLearn beskikbaar gestel. Dit kan ook gebruik word om aanlyn-assesserings af te lê en om klasaktiwiteite te doen. Gaan na: <http://learn.sun.ac.za/> en teken aan met jou gebruiklike wagwoord en gebruikersnaam.

Klasindelings vir Wetenskap in Konteks 178

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

Tydens die eerste WiK-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 WiK-klas van die studiejaar by te woon!

Class groupings for Science in Context 178

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

During the first SiC 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 SiC class of the academic year!

Information on SUNLearn

SUNLearn is the University's learning management system. This is used to facilitate the blended learning approach, followed by the University. There is a special page for each of the modules you are registered for. It is very important to sign on regularly as lecturers use this to communicate important information. Module frameworks and class material are also available on SUNLearn. It can also be used for online assessments and class activities Visit <http://learn.sun.ac.za/> and use your regular password and username to sign in.

Steun vir studente

Waardevolle advies

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

Gaan na My.SUN / Studies 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 departement waarin die module aangebied word, te gaan gesels. (Bv Biologie se tuisdepartement is die Departement Plant- en Dierkunde). As jy nie weet wat om te doen nie, kontak me. Valentyn.

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. Aatika Valentyn, Koördineerder: Akademiese en Studentebelange hieroor in die AI Perold Gebou K:2012.
- Indien daar fout is met jou registrasie, gaan spreek mnr. Bevin Abels, ons fakulteits-

administrateur, by Admin A
K:2027.

Onthou: indien jy gedurende die jaar besluit om enige modules te staak of te verander, moet jy toestemming by die Fakulteit verkry voor **22 Januarie** (eerste semester), en voor **31 Julie** (tweede semester). **Let** daarop dat wanneer jy 'n module staak, dit eintlik daarop neerkom dat jy daardie module “sak”.

Wat as jy van program (“kursus”) binne die Fakulteit Natuurwetenskappe wil verander?

Jy moet aansoek doen om goedkeuring as jy van program wil verander. Vir advies hieroor, kontak me Aatika Valentyn, Koördineerder: Akademiese en Studentebelange, in die Al Perold Gebou K:2012.

Voltooi die versoekvorm aanlyn by <http://bit.ly/2020ScienceRequests>
Die skakel is ook beskikbaar op SUNLearn (<http://learn.sun.ac.za>) by die “module” Voorgraadse Studente in Natuurwetenskappe / Module- en Programversoeke / Module, Programme Requests.

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 doodsertifikate 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 Dekaaansafdeling indien nie.

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

Support for students

Helpful advice

You should 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 My.SUN / Studies 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 Natural Science Student Committee (NSC) to escort you.

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

If you do not know what to do, contact Ms Valentyn.

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 Aatika Valentyn, Coordinator: Academic and Student Affairs in this regard at the AI Perold Building, R:2012.
- If you detect a problem with your registration, contact Mr Bevin Abels, the Faculty Administrator in Admin A, R:2027.

Remember, if you wish to change or cancel modules during the academic year, you should get approval from the Faculty before **22 January** (first semester) and before **31 July** (second semester). Be careful – cancelling a module actually reflects as “failing” that module.

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 Aatika Valentyn, Coordinator: Academic and Student Affairs, in die AI Perold Building R:2012.

Complete the request form online at <http://bit.ly/2020ScienceRequests>
The link is also available on SUNLearn at <http://learn.sun.ac.za> under the “module” Undergraduate Students in Science / Module- en Programversoeke / Module, Programme Requests.

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”.

Departementele leiers / Departmental leaders

<p>Aardwetenskappe Earth Sciences</p> <p>Prof Alex Kisters 021 808 3113</p>	<p>Fisiologiese Wetenskappe Physiological Sciences</p> <p>Prof Resia Pretorius 021 808 3143</p>	
<p>Biochemie Biochemistry</p> <p>Prof Ann Louw 021 808 5873</p>	<p>Mikrobiologie Microbiology</p> <p>Prof Alf Botha 021 808 5856</p>	
<p>Chemie en Polimeerwetenskap Chemistry and Polymer Science</p> <p>Prof Peter Mallon 021 808 3172</p>	<p>Plant- en Dierkunde Botany and Zoology</p> <p>Prof Theresa Wössler 021 808 3160</p>	
<p>Fisika / Physics</p> <p>Prof Kristian Müller-Nedebock 021 808 3386</p>		
<p>Wiskundige Wetenskappe / Mathematical Sciences Prof Ingrid Rewitzky</p>		
<p>Afdeling Wiskunde / Mathematics Division</p> <p>Prof Leon van Wyk 021 808 3280</p>	<p>Afdeling Rekenaarwetenskap / Computer Science Division</p> <p>Prof Berndt Fischer 021 808 4232</p>	<p>Afdeling Toegepaste Wiskunde / Applied Mathematics Division</p> <p>Dr Willie Brink 021 808 4218</p>

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.


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.


**Natuurwetenskappe
Studentekomitee**



Kontak die NSK / Contact the NSC

 AI Perold Gebou/Building: K:2011

 nsk@sun.ac.za

 See for events and important dates

- <http://www.sun.ac.za/english/faculty/science/Pages/Sciences-Student-Committee.aspx>
- <http://www.sun.ac.za/afrikaans/faculty/science/Pages/Sciences-Student-Committee.aspx>
- www.facebook.com/Stellenbosch UniversityScience

Meet the NSC / Ontmoet die NSK



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Lauren Hayward
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**Kampussekuriteit Noodnommer /
Campus Security Emergency Number**

021 808 2333

Besoek ons webblad

Gaan na die fakulteitswebblad by www.sun.ac.za/science. Die afdeling “Vir Studente” is veral handig. Hier kan jy onder meer lees oor geskatte boeke- en studiegelde, dekaans-vergunningseksamens, of sien watter nagraadse navorsings-geleenthede daar is. Jy kan ook ’n kopie van ons **Jaarboek** hier aflaai.

Visit our website

Browse through our 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**.

NOTES / NOTAS