

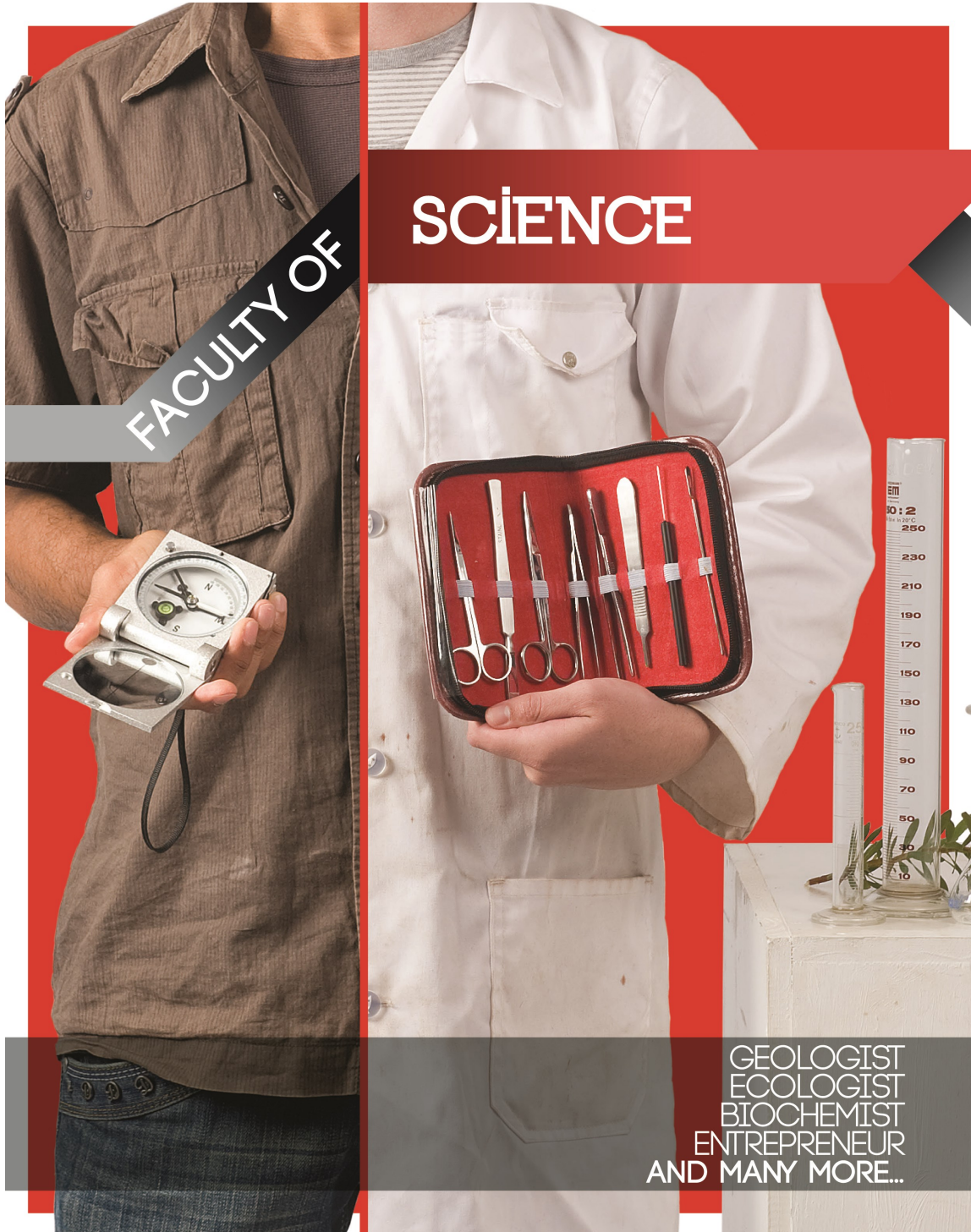
Faculty of Science



UNIVERSITEIT
STELLENBOSCH
UNIVERSITY

FACULTY OF

SCIENCE



GEOLOGIST
ECOLOGIST
BIOCHEMIST
ENTREPRENEUR
AND MANY MORE...

Fakulteit Natuurwetenskappe



Welcome

Welcome on our lovely Maties campus! As student in the Faculty of Science you are faced with new challenges. South Africa needs specialists in mathematics, science and technology. Here at Stellenbosch University you will be prepared to make a contribution to ensure South Africa's competitiveness on the international science and technology front.

It is important to work really hard, especially in the first year, to ensure a good foundation on which to build. During this process you will develop as an individual and a scientist into someone who will be able to think critically with creative problem-solving skills.

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



Welkom

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 maak wat sal verseker dat Suid-Afrika op die internasionale wetenskaplike en tegnologiese fronte kan meeding.

Onthou, jou studies sal selfdisipline, pligsgetrouheid, harde werk en toewyding verg. Die akademiese jaar is kort en tyd is kosbaar. Gedurende jou jare as student sal jy as beide individu en wetenskaplike ontwikkel. Ons heg groot waarde aan die ontwikkeling van kritiese wetenskaplikes en kreatiewe denkers en probleemoplossers.

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

Kind regards / Vriendelike groete

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



At your service



Akademiese koördineerder / Academic coordinator

Wilma Wagener

021 808 3063 ww@sun.ac.za

Al Perold Gebou/Building K:2012

Vir programhulp en -navrae of VGP ondersteuning



Fakulteitsbeampste / Faculty officer

Bevin Abels

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Vir registrasie of program- en moduleveranderings



Rekenaargebruik / Computer usage

Ilse de Kock

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Sekretaresse van die dekaan / Dean's secretary

Suzette Els

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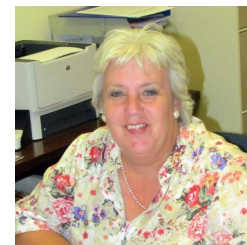


Direkteur: Fakulteitsbestuur / Director: Faculty Management

Mariëtta van den Worm

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Tot jou diens

Hoe om te registreer

Om as 'n Matie te kan klasloop, **MOET** jy as student **registreer**. Jy kan kies hoe jy dit wil doen – op die internet of in persoon. As jy seker is van jou modules, is dit baie maklik om aanlyn te registreer by www.mymaties.com. Hierdie diens is vanaf **14 Januarie 2016** beskikbaar. Let asseblief op die volgende:

- SLEGS studente wat die Nasionale Senior Sertifikaat in die SA skoolstelsel of die skooleind-sertifikaat 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 25 Januarie 2016** 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 (2016) van die **Natuurwetenskappe Jaarboek (Deel 5)** gebruik. Kry 'n kopie van die 2016 Jaarboek by: www.sun.ac.za/science (onder die aftrek-kieslys (dropdown menu) “vir studente”) of 'n **harde kopie** by **Admin A** se inligtingskiosk.

How to register

To become a Matie you **HAVE to register** as a student. You have options about how you want to go about it – either on the internet or in person. If you are certain about your modules, it is quite easy to register online at www.mymaties.com. This service is available from **14 January 2016**. 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, 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 25 January 2016** 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 (2016) of the **Science Calendar (Part 5)** as a reference. Obtain a copy of the 2016 Calendar from www.sun.ac.za/science (under the dropdown menu “for students”) or a **hard copy** from the **Info Kiosk** in **Admin A**.

Studieprogramme vir 2016

Program	Stroom	Eerstejaarskurrikulum
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
	Tekstiel- en Polimeerwetenskap	3, 4, 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*
	Abstrakte Wiskunde	spes variasies van 7*
* sien Jaarboek 2016 Deel 5 Natuurwetenskappe		

Study Programmes for 2016

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 Sciences	3, 4, 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*
GeolInformatics		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*

* see Calendar 2016 Part 5 Science

Eerstejaarskurrikula vir 2016

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	
<i>Wiskunde 5 & Fisiese Wetenskappe 4</i>	
Biologie	124 & 144 & 154
Chemie	124 & 144
Fisika Bio	134 & 154
Wiskunde Bio	124
Rekenaarvaardigheid	171
Wetenskapkommunikasie-vaardigheid	172

Kurrikulum 2	
<i>Wiskunde 5 & Fisiese Wetenskappe 4</i>	
Biologie	124 & 154
Chemie	124 & 144
Fisika Bio	134 & 154
Wiskunde Bio	124
Rekenaarvaardigheid	171
Wetenskapkommunikasie-vaardigheid	172
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
Rekenaarvaardigheid	171
Wetenskapkommunikasie-vaardigheid	172

Kurrikulum 4	
<i>Wiskunde 6 & Fisiese Wetenskappe 4</i>	
Geo-omgewingswetenskap	124 & 154
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Rekenaarvaardigheid	171
Wetenskapkommunikasie-vaardigheid	172

Kurrikulum 5	
<i>Wiskunde 6 & Fisiese Wetenskappe 4</i>	
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Rekenaarwetenskap	114 & 144
Rekenaarvaardigheid	171
Wetenskapkommunikasie-vaardigheid	172

Kurrikulum 6	
<i>Wiskunde 6 & Fisiese Wetenskappe 4</i>	
Chemie	124 & 144
Fisika	114 & 144
Wiskunde	114 & 144
Waarskynlikheidsleer & Statistiek	114
Toegepaste Wiskunde	144
Rekenaarvaardigheid	171
Wetenskapkommunikasie-vaardigheid	172

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
Rekenaarvaardigheid	171
Wetenskapkommunikasie-vaardigheid	172

Sportwetenskap	
<i>Wiskunde 5 & Fisiese Wetenskappe 4</i>	
Biologie	124 & 154
Chemie	124 & 144
Fisika Bio	134 & 154
Wiskunde Bio	124
Kinesiologie	162 & 182
Rekenaarvaardigheid	171
Wetenskapkommunikasie-vaardigheid	172

GeoInformatika	
<i>Wiskunde 6 OF *Wiskunde 5 (indien Wisk Bio & Fisika Bio gevolg word) & Fisiese Wetenskappe 4</i>	
Geo-omgewingswetenskap	124 & 154
Rekenaarvaardigheid	171
Wetenskapkommunikasie-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

Aardwetenskap	
<i>Wiskunde 6 OF *Wiskunde 5 (indien Wisk Bio en Fisika Bio gevolg word) & Fisiese Wetenskappe 4</i>	
Aardwetenskap Veldvaardighede	172
Chemie	124 & 144
Geo-omgewingswetenskap	124 & 154
Rekenaarvaardigheid	171
Wetenskapkommunikasie-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
<i>Wiskunde 6 & Fisiese Wetenskappe 4 (indien Fisika & Chemie gevolg word)</i>
Variasies van Kurrikulum 7 soos deur stroom bepaal
*Sien Natuurwetenskappe Jaarboek Deel 5 2016

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	186 176
Wetenskapkommunikasie-vaardigheid	116 & 146

First year curricula for 2016

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	
<i>Mathematics 5 & Physical Science 4</i>	
Biology	124 & 144 & 154
Chemistry	124 & 144
Physics Bio	134 & 154
Mathematics Bio	124
Computer Skills	171
Scientific Communication Skills	172

Curriculum 2	
<i>Mathematics 5 & Physical Science 4</i>	
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	
<i>Mathematics 6 & Physical Science 4</i>	
Biology	124 & 144 or 154
Chemistry	124 & 144
Physics	114 & 144
Mathematics	114 & 144
Computer Skills	171
Scientific Communication Skills	172

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

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

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

GeolInformatics	
<i>Mathematics 6 OR *Mathematics 5 (if Maths Bio & Physics Bio are taken) & Physical Science 4</i>	
Geo-environmental Science	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

Earth Sciences	
<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
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

Mathematical Sciences	
<i>Mathematics 6 & Physical Science 4 (if Physics and Chemistry are taken)</i>	
Variations in Curriculum 7 as determined by stream	
*See Science Calendar Part 5 2015	

Extended Degree Programmes 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	186 176
Scientific Communication Skills	116 & 146

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)

Programkoördineerder – die persoon wat die kurrikulumsamestelling en inhoud van jou program koördineer, en met wie jy programnavrae kan bespreek.

Wat is 'n graadprogram? En 'n stroom? En 'n module?

Graadprogram 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.

114? 144? 171? Wat nou?

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 en

'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 TWEEDE 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. Vermenigvuldig die kredietgetal met 10 om te bepaal wat die **minimum** aantal ure is (kontakssessies, 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 al die modules slaag nie?

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 Hertoelating-skomitee deeglik motiveer waarom jy toegelaat moet word om jou studies voort te sit. Hertoelating word **NIE** gewaarborg nie. Werk eerder hard van die begin af en soek betyds hulp indien jy probleme ondervind.

Hoe lank is 'n kontakssessie?

Elke module se kontakssessies 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)

Indien jy weens grondige redes nie verpligte kontakssessies kan bywoon nie, moet jy verskoning maak by die **modulekoördineerder of administratiewe beampte van die departement** en bewyse (bv. 'n siektesertifikaat) indien.

Taalaanbieding

Die oorwegende taal van aanbidding van elke module word in die Jaarboek aangedui, maar alle toets- en assesseringsmateriaal is altyd in beide tale beskikbaar:

A – oorwegend **Afrikaans**

E – oorwegend **Engels**

T – **beide tale in dieselfde sessie**

A & E – afsonderlike klasse in **Afrikaans en Engels**, afhangend van die studentegetalle.

A+i en E+i dui op **intydse tolking**

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).

Programme coordinator – the person who coordinates and organises the curriculum of a particular programme and who can help with any queries you might have with your specific programme.

Degree programmes, streams, modules – what are they?

Degree 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).

114? 144? 171? What's up with all the numbers?

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 and

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. 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 all the modules?

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. Rather work hard from the start and seek help in time if you experience any problems.

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)

If you cannot attend a compulsory contact session due to sound reasons, you must report it to your **module coordinator** or **departmental administration officer** and supply the needed proof (e.g. sick note).

Language

The language in which a contact session is mainly offered is indicated in the Calendar, but all tests and assessment material are always available in both languages.

A – mainly **Afrikaans**

E – mainly **English**

T – both languages used in the same session

A & E – separate classes in Afrikaans and English offered, depending on student numbers.

A+i & E+i indicates **simultaneous interpreting**

Lecturers 2016 Dosente

Modules, programme 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 marnel@sun.ac.za
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	Prof E Jacobs	2013 Polimeerwetenskap	808 3178 epj@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			
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	Prof J Geldenhuys	A519 Alg Ing wese	808 4232 jaco@cs.sun.ac.za
144	Dr H de Villiers	A510 Alg Ing wese	808 9498 hdevil@sun.ac.za
Rekenaarvaardigheid / Computer Literacy			
171, 176	Me H Haroldt	3021 Natuurwetenskap	808 3521 hharoldt@sun.ac.za
Wiskunde / Mathematics			
114, 144	Dr K Howell	1009D 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	Me E Burger	3003 Wiskundige Wetenskappe & Bedryfsielkunde Gebou	808 2628 ejburger@sun.ac.za
176	Mnr J Masuret	3003 Wiskundige Wetenskappe & Bedryfsielkunde 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	Ms R Raomaney	2019 Wilcocksgebou	808 3973 rizwanaraomaney@sun.ac.za
Wetenskapkommunikasievaardigheid / Scientific communication 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 the Natural Sciences			
176	Me W Wagener	2012 Peroldgebou	808 3063 ww@sun.ac.za

Text books 2016 Handboeke

Eerstejaarmodules First Year Modules	Mod- No	Titel Title	Uitgawe Edition	Outeur Author	Uitgewers Publisher
Biologie / Biology	124, 144, 154	Biology: The Dynamic Science	3	Russel PJ, Hertz PE,McMillan B.	Brooks/Cole Cengage Learning Pearson
Chemie / Chemistry	114	Chemistry, The Central Science: A Broad Perspective	3	Brown, Le may, Bursten, Murphy, Langford, Sagatys	Pearson
	154	Workbook in Organic Chemistry / Werkboek in Organiese Chemie			Available from the Department / Beskikbaar by Departement
Fisika / Physics	114, 144	Sears and Zemensky's University Physics	14	HD Young & RA Freedman	Addison Wesly
	Bio 134, 154	Physics	3	Giambattista / Richardson	McGraw-Hill Education
Fisiologie / Physiology	114, 144	Essentials of Human Anatomy & Physiology		Elaine E Marieb	Pearson
Geo-omgewingswetenskap / Geo-environmental Science	154	Earth: An introduction to Physical Geology	11	Tarback, EJ & Lutgens, FK	Pearson Prentice Hall
		Laboratory Manual in Physical Geology	10	Busch, RM	Pearson
	124	Geography: An integrated approach	4	D Waugh	Nelson
Rekenaarwetenskap / Computer Science	114, 144	Introduction to Programming in Java: an Interdisciplinary Approach	5	R Sedgewick & K Waynel	Addison Wesley
Sielkunde /Psychology	114, 144	Psychology: Themes and Variations	2	Weiten	Cengage
Wiskunde / Mathematics	114	Algebra: A modern Introduction	4	Poole	Cengage
	144	Calculus	New ed	J Stewart	Cengage
	Bio 124	Applied Calculus for Business, Economics, and the Social and Life Sciences	10	L.D Hoffmann & GL Bradley	McGraw-Hill
Waarskynlikheidsleer & Stats / Probability Theory & Stats	114	A First Course in Probability	9	Sheldon Ross	Prentice-Hall

Ontmoet jou programkoördineerders

Ons programkoördineerders koördineer ons onderskeie programme.
Our programme coordinators coordinate our various programmes.

Biodiversiteit en Ekologie / Biodiversity and ecology



Prof Theresa Wossler
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Natuurwetenskappe Gebou
K:2015

Aardwetenskap / Earth Science



Dr Jodie Miller
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Kamer van Mynwese Gebou
K:2007

Molekulêre Biologie en Bioteegnologie / Molecu- lar Biology and Biotechnology



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JC Smuts Gebou K:A213

Geoinformatika / Geoinformatics



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Menslike Lewenswetenskappe / Human Life Sciences



Prof Anna-Mart Engelbrecht
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Mike de Vries Gebou K:2050

Fisiese wetenskappe / Physical Sciences



Fisika-rigtings / Physics directions
Prof Shaun Wyngaardt
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Merensky Gebou K:1018

Sportwetenskap / Sport Science

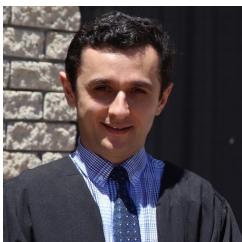


Dr Karen Welman
welman@sun.ac.za
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Sportwetenskap Gebou K:411



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

Wiskundige wetenskappe / Mathematical Sciences



Prof Zurab Janelidze
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Wiskundige Wetenskappe en
Bedryfsielkunde Gebou K:1023C

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 1 Februarie 2016**, 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 klasroosterindelings verskil. Maak dus seker dat jy vanaf **Donderdag 28 Januarie 2016** 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 1 February 2016** 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 28 January 2016**.

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

Klasindelings vir WKV 172

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

Al die groeipindelings verskyn op **www.mymaties.com**. 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 for 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.

You will find all the group allocations on **www.mymaties.com**. 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!

For **support**, Contact Ms Zaan Bester 021 808 2695 or zbester@sun.ac.za

Visit our website / Besoek ons webblad

Gaan loer gerus na ons fakulteitswebblad by **www.sun.ac.za/science** en veral die afdeling “**Vir Studente**”. 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.

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.



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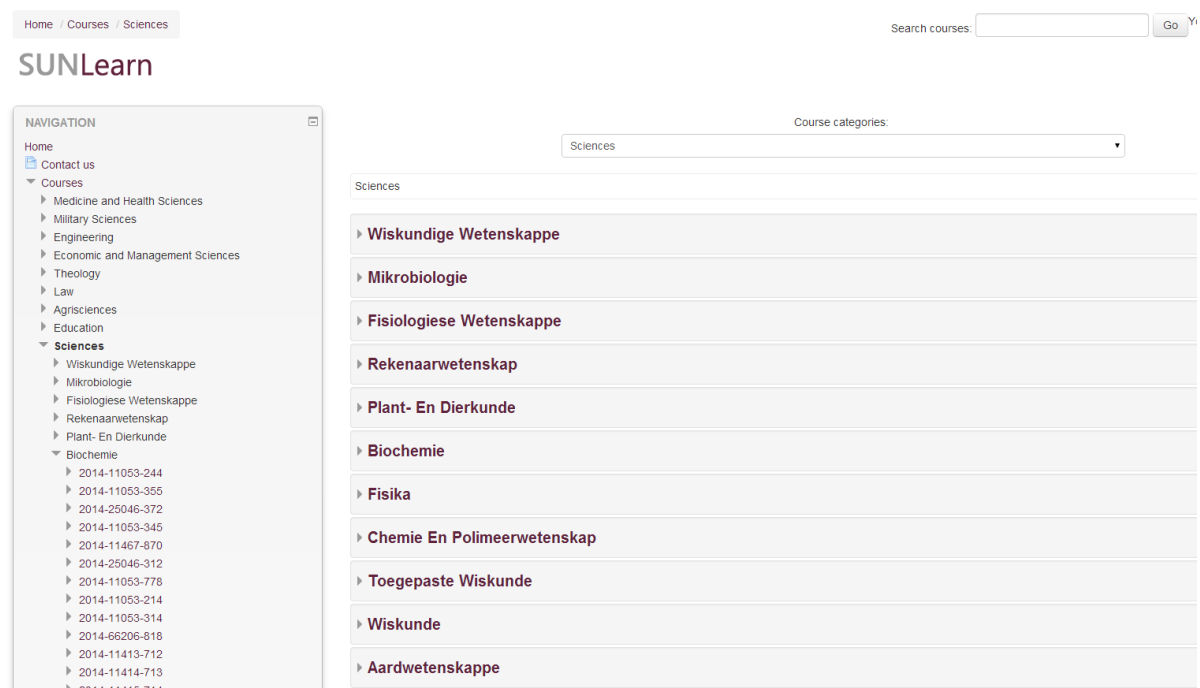
<https://www.facebook.com/StellenboschUniversityScience>



Hulp danksy SUNLearn

Op SUNLearn is 'n **webblad spesiaal vir eerstejaars** waar inligting wat spesifiek van toepassing is op studente van die Fakulteit Natuurwetenskappe, beskikbaar is (wat as jy 'n klas gemis het; hoe HEMIS- krediete werk; algemene kennisgewings en besprekingsbord). Verder is daar ook vir elkeen van jou modules 'n spesiale bladsy op SUNLearn. Dit is **baie belangrik om dit gereeld te lees**. Die meeste modules se module-raamwerke is ook hier beskikbaar.

Besoek <http://learn.sun.ac.za/> en teken aan met jou gebruiklike wagwoord en gebruikersnaam.



Support through SUNLearn

SUNLearn has a **webpage with information especially for first year students** in the Faculty of Science (i.e. what to do if you have missed a class; how HEMIS credits work; general announcements and discussion board). There is also a special page on SUNLearn for each of your modules. It is **very important that you will read this on a regular basis**. Most module frameworks are also available here.

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

Sukkel jy met jou studies?

Waardevolle advies

Me. Wilma Wagener is ons fakulteit se Akademiese Koördineerder. Vir programhulp en -navrae, en ondersteuning met Verlengde Graadprogramme (VGP), kontak haar by ww@sun.ac.za of 021 808 3063. Of besoek haar in die Al Perold Gebou K:2012.

Maak jouself ook vertrouwd met al die ander hulpstrukture binne die US, en benut hulle. Vir hulp met studiemetodes kan jy onder meer by die Sentrum vir Studentevoorligting en Ontwikkeling (SSVO) aanklop.

Gaan loer ook by www.maties.com/steun.html om meer te leer 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.

Dis nie nodig om moed op te gee wanneer dit begin lyk asof jy vasbrand nie. 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 'n fout was met jou registrasie, gaan spreek mnr. Bevin Abels, ons fakulteit-sekretaris, 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 **12 Februarie**, en in die tweede semester voor **26 Julie** doen. Let daarop dat wanneer jy 'n verpligte module staak, dit eintlik daarop neerkom dat jy daardie module “sak”.

Wat as jy van program (“kursus”) wil verander?

Jy moet aansoek doen om goedkeuring as jy van program wil verander. Besoek mnr. Bevin Abels, ons fakulteitsekretaris, by Admin A K:2027.

Hoe gemak 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 verkieslik 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 Dekansafdeling 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”.

Struggling with your studies?

Helpful advice

Ms Wilma Wagener is our faculty's Academic Coordinator. For assistance and enquiries with regard to programmes, as well as support with Extended Degree Programmes (EDPs), you can contact her at ww@sun.ac.za or 021 808 3063. Or visit her at the Al Perold Building, R:2012.

You should also familiarise yourself with all the support structures the SU has to offer and make use of them. The Centre for Student Guidance and Development, for instance, can help you with enhanced study methods.

Also have a look at www.maties.com/support.html 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.

Don't just give up on your studies if you do not succeed at first. 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 Al 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 **12 February** (first semester) and before **26 July** (second semester). Be careful – cancelling a prescribed module actually reflects as “failing” that module.

What if you want to change programmes (“courses”)?

You have to apply for official approval before you can change programmes. Contact Mr Bevin Abels our Faculty Officer at Admin A, R:2027 to apply.

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 preferably 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”.

Departmental leaders

Aardwetenskappe / Earth Sciences

Prof Roy Roychoudhury
021 808 3219



Biochemie / Biochemistry

Prof Johann Rohwer
021 808 5862



Chemie & Po- limeerwetenskap / Chem- istry & Polymer Science

Prof Peter Mallon
021 808 3172



Fisika / Physics

Prof Erich Rohwer
021 808 3391



Fisiologiese Wetenskappe / Physiological Sciences

Prof Anna-Mart Engel-
brecht
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
021 808 3282



Departementele leiers

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 here.

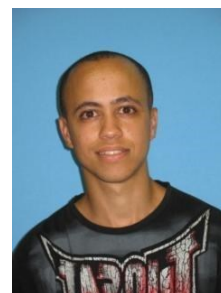
Die Natuurwetenskappe Studentekomitee

(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 sal jou met raad en daad bystaan sodat jy jou studies in hierdie fakulteit so veel as moontlik kan geniet.



Ludwe Mtakati

Voorsitter/ Chair



Shane Josias

*Ondervoorsitter/
Deputy chair*



Dominic Nicholas



Mangi Denga



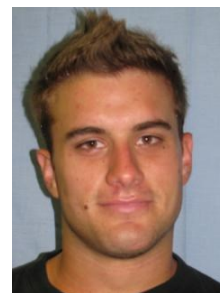
Dominique West



Kalishna Govender



Oliver Hansen



Erik Rust

Contact us / Kontak ons

AI Perold Gebou/Building: K:2011

T 021 808 2681 nsk@sun.ac.za

**Check our website for events
and important dates**

[http://www.sun.ac.za/english/
faculty/science/for-students/sciences
-student-committee](http://www.sun.ac.za/english/faculty/science/for-students/sciences-student-committee)

Die NSK werk vir jou

[illegible]



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programme

For more information contact the
IT STUDENT CENTRE

student@sun.ac.za or
www.sun.ac.za/ithub

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