



Stellenbosch

UNIVERSITY
IYUNIVESITHI
UNIVERSITEIT

SCIENCE

EYENZULULWAZI NGEZENDALO

NATUURWETENSKAPPE

Biology 144 – Biodiversity and Ecology

Short description of the module

This module focuses on the biodiversity and ecology of biological life. It consists of four submodules: the diversity of micro-organisms, plants, and animals, as well as ecological principles and global change. You will be introduced to the unbelievable diversity of living organisms that share the Earth with us, as well as how these organisms interact with each other and their physical environments. This module serves as a basis for later programmes in the biological and the agricultural sciences.

Biologie 144 – Biodiversiteit en Ekologie

Kort beskrywing van die module

Hierdie module fokus op die diversiteit en ekologie van biologiese lewe. Dit bestaan uit vier submodules: mikrobiële diversiteit, die diversiteit van plante en diere asook ekologiese beginsels en aardveranderinge. Jy sal bekendgestel word aan die ongelooflike diversiteit van lewende organismes wat die Aarde met ons deel, sowel as die interaksies tussen hierdie organismes en hul fisiese omgewing. Hierdie module dien as basis vir latere programme in die biologiese- en agriwetenskappe.

Module summary

Name	Biology 144 – Biodiversity and Ecology
Duration	2 nd semester
Type	
Academic commitment*	16 credits = 160 notional hours 12 hours per week for lectures, tutorials/practical's and studying.
Scheduled learning opportunities	3 lectures (L) per week 1 tutorial or practical per week
Assessment option	Option 2: A1 (T1 and T2) and A2 each cover different parts of the syllabus; A3 covers the entire syllabus.
Language option	Option 1: lectures, practicals and tutorials are in English or Afrikaans (separate classes).
Mode of offering	Face-2-Face
Corequisites / Prerequisites / Pass prerequisites**	Biology 124 Chemistry 124, 144

**Notional hours are the learning time that it would take an average learner to meet the outcomes of the module.*

***The onus is on the students to ensure that they meet the prerequisites of the module.*

Module-oorsig

Naam	Biologie 144 – Biodiversiteit en Ekologie
Duur	2de semester
Tipe	
Akademiese verbintenis*	16 krediete = 160 veronderstelde leerure 12 ure per week vir lesings, tutoriale/praktika en studeer.
Geskeduleerde leergeleenthede	3 lesings (L) per week 1 tutoriaal of prakties per week
Assesseringsopsie	Opsie 2: A1 (T1 en T2) en A2 elk dek verskillende dele van die sillabus. A3 dek die hele sillabus.
Taalopsie	Opsie 1: lesings, praktika en tutoriale is in Engels of Afrikaans (aparte klasse).
Modus van aanbieding	In persoon (face-to-face)
Nowe vereistes / Voorvereistes / Slaagvoorvereistes**	Biologie 124 Chemie 124, 144

**Veronderstelde leerure is die tyd wat die gemiddelde leerder aan die module sal moet spandeer om aan die uitkomst van die module te voldoen.*

***Die onus rus op die studente om te verseker dat hulle aan die voorvereistes van die module voldoen.*

Outcomes

We designed this module so that you may gain basic knowledge and understanding of the classification and diversity of all living organisms on Earth, as well as the interactions of organisms with each other, and their environment.

At the end of the module, you should have a good understanding of the following:

- The system according to which all living organisms are classified as well as the diversity of microorganisms, plants, and animals.
- The evolutionary history and development of plants and animals.
- The ecology of populations and communities, the dynamics of ecosystems, the biosphere, and the future of the biosphere.

See the study objectives of each sub-module under 'Syllabus' on SUNLearn.

During online activities or f2f practicals, several of these groups of organisms will be studied. Completion of ALL assessments / practicals / activities and tutorials is compulsory to achieve the outcomes of this module.

Uitkomst

Hierdie module is so ontwerp dat jy basiese kennis en begrip sal opdoen oor die klassifikasie van alle lewendige organismes op Aarde, asook hul interaksies met mekaar en hul omgewing.

Aan die einde van die module behoort jy 'n goeie begrip van die volgende te hê:

- Die sisteem waarvolgens alle lewende organismes klassifiseer word, asook die diversiteit van mikroörganismes, plante en diere.
- Die evolusionêre geskiedenis en ontwikkeling van plante en diere.
- Die ekologie van bevolkings en gemeenskappe, die dinamika van ekosisteme, die biosfeer en die toekoms van die biosfeer.

Sien die studiedoelwitte van elke submodule onder 'Syllabus' op SUNLearn.

Gedurende aanlyn aktiwiteite of f2f praktika sal verskeie van hierdie groepe van organismes bestudeer word. Die voltooi van ALLE assesserings / praktika / aktiwiteite en tutoriale is VERPLIGTEND om die uitkomst van die module te bereik.

Scheduled learning opportunities

The official timetable indicating all scheduled learning opportunities and their allocated venues can be accessed via [My.SUN](#). For this module students will be subdivided into practical and tutorial groups. These schedules are available on the module page on SUNLearn.

If your name is not on the list for practical / tutorial groups, (repeating students and late registrations), you can send an email to Mrs Nel (acnel@sun.ac.za) and indicate a timeslot that can work on your timetable.

Groups	Time	Venue
Group 1 English	Monday 08:00 Wednesday 09:00 Thursday 12:00	All lectures in A201, JC Smuts Building
Group 2.1 Afrikaans	Monday 11:00 Wednesday 10:00 Friday 08:00	All lectures in 3005, Natural Science Building
Group 2.2 English	Monday 11:00 Wednesday 10:00 Friday 08:00	All lectures in A203, JC Smuts Building

Lectures

The Bio 144 module will be offered on campus during face-face lectures. See the lecture schedules [here](#).

Geskeduleerde leergeleenthede

Die amptelike rooster wat al die geskeduleerde leergeleenthede en die toegewysde lokale aandui, is beskikbaar by [My.SUN](#). Vir hierdie module sal studente in praktiese- en tutoriaal-groepe ingedeel word. Hierdie skedules is beskikbaar op die moduleblad op SUNLearn.

Indien jou naam nie op hierdie lyste vir die praktika / tutoriaal-groepe is nie, (herhalende studente en laat registrasies), kan jy 'n epos stuur aan Me Nel (acnel@sun.ac.za) en

Groepe	Tyd	Lokaal
Groep 1 Engels	Maandag 08:00 Woensdag 09:00 Donderdag 12:00	Alle lesings in A201, JC Smuts Gebou
Groep 2.1 Afrikaans	Maandag 11:00 Woensdag 10:00 Vrydag 08:00	Alle lesings in 3005, Natuurwetenskappe Gebou
Groep 2.2 Engels	Maandag 11:00 Woensdag 10:00 Vrydag 08:00	Alle lesings in A203, JC Smuts Gebou

Lesings

Die Bio 144 module sal op kampus aangebied word tydens in-persoon lesings. Sien die lesingskediule [hier](#).

Tutorials and Practicals

WEEK	DATES	SUBMODULE
1	25 & 27 July 2023	NO PRACTICAL or TUTORIAL
2	01 & 03 August 2023	Microbial Diversity
3	08 & 10 August 2023	Microbial Diversity
4	15 & 17 August 2023	NO PRACTICAL or TUTORIAL
5	22 & 24 August 2023	Diversity of Plants
6	29 & 31 August 2023	Diversity of Plants
7	05 & 07 Sept 2023	Diversity of Plants
8	19 & 21 Sept 2023	Diversity of Animals
9	26 & 28 Sept 2023	Diversity of Animals
10	03 & 05 Oct 2023	Diversity of Animals
11	10 & 12 Oct 2023	Ecology
12	17 & 19 Oct 2023	Ecology
13	24 & 26 Oct 2023	Ecology (in case of rain in week 11 or 12)

Tutoriale and Praktika

WEEK	DATUM	SUBMODULE
1	25 & 27 Julie 2023	GEEN PRAKTIKA of TUTORIAAL
2	01 & 03 Aug 2023	Mikrobiese Diversiteit
3	08 & 10 Aug 2023	Mikrobiese Diversiteit
4	15 & 17 Aug 2023	GEEN PRAKTIKA of TUTORIAAL
5	22 & 24 Aug 2023	Diversiteit van Plante
6.	29 & 31 Aug 2023	Diversiteit van Plante
7.	05 & 07 Sept 2023	Diversiteit van Plante
8.	19 & 21 Sept 2023	Diversiteit van Diere
9.	26 & 28 Sept 2023	Diversiteit van Diere
10.	03 en 05 Okt 2023	Diversiteit van Diere
11.	10 & 12 Okt 2023	Ekologie
12.	17 & 19 Okt 2023	Ekologie
13.	24 & 26 Okt 2023	Ekologie (in geval van reen in week 11 of 12)

Study material

Prescribed textbook: Russell, Hertz, McMillan, Biology: The Dynamic Science (5th edition). Cengage Publishers. International Edition.

SUNLearn is the official learning management platform of Stellenbosch University. Each module has a dedicated page on this platform which can be accessed via this link: <https://learn.sun.ac.za/>

Studiemateriaal

Voorgeskrewe Handboek: Russell, Hertz, McMillan, Biology: The Dynamic Science (5th edition). Cengage Publishers. International Edition.

SUNLearn is die amptelike leerbestuursplatform van die Universiteit Stellenbosch. Elke module het 'n toegewysde blad op hierdie platform met toegang via hierdie skakel: <https://learn.sun.ac.za/>

Lecturers

Submodule		Department	Lecturers
1	Microbial Diversity	Microbiology JC Smuts Building	Prof M Viljoen-Bloom (convener) mv4@sun.ac.za Dr SM Deane smd@sun.ac.za
2	Diversity of Plants	Botany and Zoology Natural Science Building	Prof L Dreyer (convener) ld@sun.ac.za Dr N Peer npeer@sun.ac.za
3	Diversity of Animals	Botany and Zoology Natural Science Building	Prof C Simon (convener) csimon@sun.ac.za Dr A Flemming aff@sun.ac.za
4	Ecology	Botany and Zoology Natural Sciences Building	Prof A Pauw apauw@sun.ac.za Dr S Griebenow stiang@sun.ac.za

Dosente

Submodule		Departement	Dosente
1	Mikrobiese Diversiteit	Mikrobiologie JC Smuts Gebou	Prof M Viljoen-Bloom (sameroeper) mv4@sun.ac.za Dr SM Deane smd@sun.ac.za
2	Diversiteit van Plante	Plant- en Dierkunde Natuurwetenskappe Gebou	Prof L Dreyer (sameroeper) ld@sun.ac.za Dr N Peer npeer@sun.ac.za
3	Diversiteit van Diere	Plant- en Dierkunde Natuurwetenskappe Gebou	Prof C Simon (sameroeper) csimon@sun.ac.za Dr A Flemming aff@sun.ac.za
4	Ekologie	Plant- en Dierkunde Natuurwetenskappe Gebou	Prof A Pauw apauw@sun.ac.za Dr S Griebenow stiang@sun.ac.za

Assessment

The dates for all centrally scheduled assessments are published on [My.SUN](#). This module follows assessment option 2. Please see the [Faculty of Science's assessment guidelines](#) for more details.

The module is assessed through three scheduled invigilated, written assessments (on campus) covering the subject matter of Sub-modules 1, 2, 3 and 4: the A1T1, the A1T2 assessment and the A2 assessment. These three assessments contribute 80% to the final mark. The remaining 20%, known as the 'practical mark', comprises quizzes, practical or tutorial assessments (on SUNLearn or face-to-face). A 40% subminimum applies to the practical mark.

The A3 assessment will serve as a sickness test for any (only one) of the A1T1, A1T2 or A2 assessments missed through the semester with an appropriate excuse. Thus, if a student wrote all three assessments (the A1T1, A1T2 and A2) through the semester and achieved a final mark of 50% and higher, you pass the module and do not have to write the A3 assessment (it is optional then). The A3 covers the entire syllabus.

The A3 assessment will also serve as an additional assessment opportunity for:

- students who have not passed the module after the A2 and whose final mark is between 40 and 49%. These students can still pass the module after the A3, but their mark will be capped at 50%.
- any student who have already passed the module after the A2, but who wants to improve their final mark. In such a case you will have to apply to write the A3.

In both these cases, the lowest test mark will be replaced by the A3 mark.

Assesserings

Die datums van alle sentraal geskeduleerde assesserings word op [My.SUN](#) gepubliseer. Hierdie module volg assesseringsopsie 2. Raadpleeg die [Fakulteit Natuurwetenskappe se assesseringsriglyne](#) vir meer besonderhede.

Die module word geassesseer deur middel van drie geskrewe geskeduleerde assesserings onder toesig (op kampus) oor die vakinhoud van Sub-modules 1, 2, 3 and 4: die A1T1, die A1T2 assessering en die A2 assessering. Hierdie drie assesserings dra 80% by tot die finale punt. Die oorblywende 20%, ook bekend as die 'praktiese punt', bestaan uit 'quizzes', praktika of tutoriaal-assesserings (op SUNLearn of in-persoon (face-to-face)). 'n Subminimum van 40% is van toepassing op die praktiese punt.

Die A3 assessering dien as 'n siektetoets vir enige (slegs een) van die A1T1, A1T2 of A2 assesserings gemis deur die loop van die semester met geldige redes. Dus, indien 'n student al drie die assesserings (A1T1, A1T2 en A2) afgelê het tydens die semester, en 'n finale punt van 50% en hoër behaal het, slaag u die module skryf u nie die A3 assessering nie (dit is opsioneel in hierdie geval). Die A3 dek die hele sillabus.

Die A3 assessering sal ook dien as 'n addisionele assesseringsgeleentheid vir:

- studente wie nie die module geslaag het na die A2 nie, en wie se finale punt tussen 40 en 49% val. Hierdie studente kan steeds die module slaag na die A3, maar hulle punte sal beperk word tot 50%.
- enige student wat reeds die module geslaag het na die A2 maar hulle finale punt wil verbeter. In hierdie geval sal jy moet aansoek doen om die A3 te skryf.

In beide hierdie gevalle sal die laagste toetspunt vervang word met die A3 punt.

Students MUST complete ALL compulsory assessments to pass the module – these assessments are thus mandatory!

Method of assessment	Description and Content	#	Allocated marks	Criteria and Status	Dates
Quizzes, Tutorial and Practical assessments	Online or in- person assessments regarding the content of classes, the tutorial or practical.		20% of final mark	40% subminimum Compulsory assessments	As communicated
A1T1 assessment	Topic: Microbial diversity. Scheduled invigilated evening assessment on campus	1	Microbial diversity: 50 marks	Compulsory assessment	14 Aug 17:30
A1T2 assessment	Topic: Microbial diversity and Diversity of plants. Scheduled invigilated evening assessment on campus	1	Microbial diversity: 10/70 marks Diversity of plants: 60/70 marks	Compulsory assessment	18 Sept 17:30
A2 assessment	Topic: Diversity of animals and Ecology. Scheduled invigilated assessment on campus	1	Diversity of animals: 60/120 marks Ecology: 60/120 marks	Compulsory assessment	09 Nov 09:00
A3 assessment	Sickness Test and additional assessment opportunity for all four submodules. Scheduled invigilated assessment on campus	1	This assessment covers the entire syllabus: Microbial diversity: 20/80 marks Diversity of plants: 20/80 marks Diversity of animals: 20/80 marks Ecology: 20/80 marks	Optional Additional assessment opportunity for most students	02 Dec 09:00

Please see the assessments and promotion chapter in the [SU Calendar Part 1 \(General\)](#) for institutional rules regarding assessments.

Studente MOET ALLE verpligte assesserings aflê om die module te slaag – sulke assesserings is dus verpligtend!

Metode van assessering	Beskrywing en Inhoud	#	Punte toegeken	Kriteria en Status	Datums
Quizzes, Tutoriaal en Praktiese assesserings	Aanlyn of in-persoon assesserings wat handel oor die inhoud van die klasse, tutoriele of praktika..		20% van die finale punt	40% subminimum Verpligte assesserings	Soos gekommunikeer
A1T1 assessering	Tema: Mikrobiese diversiteit. Geskeduleerde aand assessering op kampus onder toesig	1	Mikrobiese diversiteit: 50 punte	Verpligte assessering	14 Aug 17:30
A1T2 assessering	Tema: Mikrobiese diversiteit en Diversiteit van plante. Geskeduleerde aand assessering op kampus onder toesig	1	Mikrobiese diversiteit: 10/70 punte Diversiteit van plante: 60/70 punte	Verpligte assessering	18 Sept 17:30
A2 assessering	Tema: Diversiteit van diere en Ekologie. Geskeduleerde assessering op kampus onder toesig	1	Diversiteit van diere: 60/120 punte Ekologie: 60/120 punte	Verpligte assessering	09 Nov 09:00
A3 assessering	Siektetoets en addisionele assesseringsgeleentheid vir al vier submodules. Geskeduleerde assessering op kampus onder toesig	1	Hierdie assessering dek die totale sillabus: Mikrobiese diversiteit: 20/80 punte Diversiteit van plante: 20/80 punte Diversiteit van diere: 20/80 punte Ekologie: 20/80 punte	Opsioneel: Addisionele assesseringsgeleentheid vir die meeste studente	02 Des 09:00

Raadpleeg die hoofstuk oor assessering en promovering in [Deel 1 \(Algemeen\)](#) van die [US Jaarboek](#) vir institusionele reëls oor assesserings.

Calculation of final marks

You pass the module if:

- Your final mark is 50% or more, AND
- You achieve a 40% subminimum for the practical component.

Berekening van finale punte

U slaag die module indien:

- U finale punt 50% en hoër is, EN
- U die 40% subminimum vir die praktiese komponent behaal het.

Absenteeism (Missed opportunities)

Please see the section 11 of the [SU Calendar Part 1 \(General\)](#) for the institutional rules regarding absence from classes and or tests.

Take note that for any absence from the university *for more than one* teaching, learning or assessment opportunity, for whatever reason, students need to apply for leave of absence from the Registrar's office.

If you are absent for exactly one teaching, learning or assessment opportunity you need to contact **Mrs Nel** (acnel@sun.ac.za) immediately and provide the appropriate evidence as stipulated in the calendar.

Afwesigheid (die misloop van 'n leergeleentheid)

Raadpleeg asseblief afdeling 11 in [Deel 1 \(Algemeen\) van die US Jaarboek](#) vir die institusionele reëls met betrekking tot afwesigheid van klasse en of toetse.

Neem kennis dat studente by die Registrateur moet aansoek doen vir verlof tot afwesigheid, vir watter rede ook al, van *meer as een* onderrig-, leer-, of assesseringsgeleentheid,

Indien jy afwesig is van presies een onderrig-, leer-, of assesseringsgeleentheid, moet jy onmiddellik vir **Mev Nel** (acnel@sun.ac.za) kontak en die toepaslike bewys van rede tot afwesigheid inhandig, soos uiteengesit in die Jaarboek.

Communication

The **announcement forum on the SUNLearn module page** is the only official platform that will be used to make announcements relevant to this module. Please check this regularly.

For communication with individual students, lecturers, support staff and peer-to-peer facilitators will only use students' official SUN email addresses.

Students are also requested to use their official **SUN email addresses** for all academic related communication to: **Mrs Nel at** (acnel@sun.ac.za).

Please state the module name in the Subject box of the email. (Bio 144)

Kommunikasie

Die **aankondigingsforum op die SUNLearn moduleblad** is die enigste amptelike platform wat gebruik sal word om aankondigings, wat relevant is vir hierdie module, te maak. Kontroleer dit asseblief gereeld.

Vir kommunikasie met individuele studente, sal dosente, steunpersoneel en eweknie-fasiliteerders slegs studente se amptelike SUN-e-posadresse gebruik.

Studente word ook versoek om hul amptelike **SUN-e-posadresse** te gebruik vir alle akademiese verwante kommunikasie te gebruik aan: **Mev Nel by** (acnel@sun.ac.za).

Noem asb die module naam in die "Subject" spasie in u epos. (Bio 144)

Addressing challenges

For any complaints, the first port of call is the class representative, Mrs Nel (acnel@sun.ac.za) or the lecturer. If not satisfactorily resolved, it can be escalated to the Head of Department or [Coordinator: Academic and Student Affairs](#).

Hantering van uitdagings

Vir enige klagtes, is die klasvertegenwoordiger, Mev Nel (acnel@sun.ac.za) of dosent die eerste plek om hulp te soek. Indien die probleem nie bevredigend opgelos word nie, kan dit na die Departementshoof of [Koördineerder: Akademiese- en Studentesake](#) verwys word.

Academic Misconduct

Academic misconduct includes plagiarism, collusion, cheating and fabrication as stipulated in the [Disciplinary code for students of Stellenbosch University](#). The [SU Policy on Plagiarism](#) defines plagiarism as: "The use of the ideas or material of others [including AI generative tools, such as ChatGPT or Bing] without [appropriate] acknowledgement, or the re-use of one's own previously evaluated or published material without acknowledgement (self-plagiarism)." Such acknowledgement would include referencing the source of previously expressed ideas or published materials, or acknowledging the contribution of e.g. the AI tool, as stipulated for a specific assessment or assignment.

Plagiarism is regarded as a serious offence. More serious cases are handled as set out in the [Stellenbosch University procedure for the investigation and management of allegations of plagiarism document](#). Less serious cases are dealt with by the module coordinator and respective department as set out by the procedures of the faculty.

Akademiese Wangedrag

Akademiese wangedrag sluit plagiaat, samespanning, bedrog en versinsel in, soos bepaal in die [Dissiplinêre kode vir studente van die Universiteit Stellenbosch](#). Die "SU Policy on Plagiarism" definieer plagiaat as die gebruik van die idees of materiaal van ander [insluitend "AI" produserende hulpmiddels, soos ChatGPT of Bing] sonder toepaslike erkenning daarvan, of die hergebruik van 'n persoon se eie voorheen-geassesseerde of gepubliseerde materiaal sonder erkenning (self-plagiaat). Toepaslike erkenning sal verwysings insluit na die bron van voorheen uitgedrukte idees of gepubliseerde materiaal, of erkenning van bv. die "AI" hulpmiddel, soos gestipuleer vir 'n spesifieke assessering of opdrag.

Plagiaat word as 'n ernstige oortreding beskou. Ernstiger gevalle word hanteer soos uiteengesit in die [Universiteit Stellenbosch se dokument oor die prosedure vir die ondersoek en bestuur van bewerings van plagiaat](#). Minder ernstige gevalle word deur die modulekoördineerder en betrokke departement hanteer soos uiteengesit in die fakulteitsprosedures.

2023 BIOLOGY 144: Lecture Calendar

WEEK	LECTURE	DATE AND TIME	Sub-Module
1	1	Mon 24 July. (08:00 and 11:00)	Microbial Diversity
	2	Wed 26 July. (09:00 and 10:00)	Microbial Diversity
	3	Thurs 27 July (12:00) & Fri 28 July. (08:00)	Microbial Diversity
2	4	Mon 31 July. (08:00 and 11:00)	Microbial Diversity
	5	Wed 02 Aug. (08:00 and 10:00)	Microbial Diversity
	6	Thurs 03 Aug. (12:00) and Fri 04 Aug. (08:00)	Microbial Diversity
3	7	Mon 07 Aug. (08:00 and 11:00)	Microbial Diversity
		Wed 09 Aug	No lectures
	8	Thurs 10 Aug (12:00) and Fri 11 Aug (08:00)	Microbial Diversity
4	9	Mon 14 Aug (08:00 and 11:00)	Microbial Diversity
	10	Wed 16 Aug (09:00 and 10:00)	Microbial Diversity
	11	Thurs 17 Aug (12:00) and Fri 18 Aug (08:00)	Diversity of Plants
5	12	Mon 21 Aug (08:00 and 11:00)	Diversity of Plants
	13	Wed 23 Aug (09:00 and 10:00)	Diversity of Plants
	14	Thurs 24 Aug (12:00) and Fri 25 Aug (08:00)	Diversity of Plants
6	15	Mon 28 Aug (08:00 and 11:00)	Diversity of Plants
	16	Wed 30 Aug (09:00 and 10:00)	Diversity of Plants
	17	Thurs 31 Aug (12:00) and Fri 01 Sept (08:00)	Diversity of Plants
7	18	Mon 04 Sept (08:00 and 11:00)	Diversity of Plants
	19	Wed 06 Sept (09:00 and 10:00)	Diversity of Plants
	20	Thurs 07 Sept (12:00) & Fri 08 Sept (08:00)	Diversity of Animals
RECESS 11-15 SEPT			
8	21	Mon 18 Sept (08:00 and 11:00)	Diversity of Animals
	22	Wed 20 Sept (09:00 and 10:00)	Diversity of Animals

2023 BIOLOGIE 144: Lesing Kalender

WEEK	LESING	DATUM EN TYD	Sub-Module
1	1	Ma 24 Julie. (08:00 en 11:00)	Mikrobiese Diversiteit
	2	Wo 26 Julie. (09:00 en 10:00)	Mikrobiese Diversiteit
	3	Do 27 Julie (12:00) en Vry 28 Julie. (08:00)	Mikrobiese Diversiteit
2	4	Ma 31 Julie. (08:00 en 11:00)	Mikrobiese Diversiteit
	5	Wo 02 Aug. (08:00 en 10:00)	Mikrobiese Diversiteit
	6	Do 03 Aug. (12:00) en Vry 04 Aug. (08:00)	Mikrobiese Diversiteit
3	7	Ma 07 Aug. (08:00 en 11:00)	Mikrobiese Diversiteit
		Wo 09 Aug	Geen lesings
	8	Do 10 Aug (12:00) en Vry 11 Aug (08:00)	Mikrobiese Diversiteit
4	9	Ma 14 Aug (08:00 en 11:00)	Mikrobiese Diversiteit
	10	Wo 16 Aug (09:00 en 10:00)	Mikrobiese Diversiteit
	11	Do 17 Aug (12:00) en Vry 18 Aug (08:00)	Diversiteit van Plante
5	12	Ma 21 Aug (08:00 en 11:00)	Diversiteit van Plante
	13	Wo 23 Aug (09:00 en 10:00)	Diversiteit van Plante
	14	Do 24 Aug (12:00) en Vry 25 Aug (08:00)	Diversiteit van Plante
6	15	Ma 28 Aug (08:00 en 11:00)	Diversiteit van Plante
	16	Wo 30 Aug (09:00 en 10:00)	Diversiteit van Plante
	17	Do 31 Aug (12:00) en Vry 01 Sep (08:00)	Diversiteit van Plante
7	18	Ma 04 Sep (08:00 en 11:00)	Diversiteit van Plante
	19	Wo 06 Sep (09:00 en 10:00)	Diversiteit van Plante
	20	Do 07 Sep (12:00) & Fri 08 Sep (08:00)	Diversiteit van Diere
RESES 11 – 15 SEPT			
8	21	Ma 18 Sep (08:00 en 11:00)	Diversiteit van Diere
	22	Wo 20 Sep (09:00 en 10:00)	Diversiteit van Diere

	23	Thurs 21 Sept (12:00) and Fri 22 Sept (08:00)	Diversity of Animals		23	Do 21 Sept (12:00) en Vry 22 Sept (08:00)	Diversiteit van Diere
9		Mon 25 Sept	No lectures	9		Ma 25 Sep	Geen lesings
	24	Wed 27 Sept (09:00 and 10:00)	Diversity of Animals		24	Wo 27 Sep (09:00 en 10:00)	Diversiteit van Diere
		Thurs 28 Sept	No lectures			Do 28 Sep	No lectures
	25	Fri 29 Sept (Monday timetable) (08:00 and 12:00)	Diversity of Animals		25	Vry 29 Sep (Maandag rooster) (08:00 en 12:00)	Diversiteit van Diere
10	26	Mon 02 Oct (08:00 and 11:00)	Diversity of Animals	10	26	Ma 02 Okt (08:00 en 11:00)	Diversiteit van Diere
	27	Wed 04 Oct (09:00 and 10:00)	Diversity of Animals		27	Wo 04 Okt (09:00 en 10:00)	Diversiteit van Diere
	28	Thurs 05 Oct (12:00) and Fri 06 Oct (08:00)	Diversity of Animals		28	Do 05 Okt (12:00) en Vry 06 Okt (08:00)	Diversiteit van Diere
11	29	Mon 09 Oct (08:00 and 11:00)	Ecology	11	29	Ma 09 Okt (08:00 en 11:00)	Ekologie
	30	Wed 11 Oct 09:00 and 10:00)	Ecology		30	Wo 11 Okt 09:00 en 10:00)	Ekologie
	31	Thurs 12 Oct (12:00) and Fri 13 Oct (08:00)	Ecology		31	Do 12 Okt (12:00) en Vry 13 Okt (08:00)	Ekologie
12	32	Mon 16 Oct (08:00 and 11:00)	Ecology	12	32	Ma 16 Okt (08:00 en 11:00)	Ekologie
	33	Wed 18 Oct (09:00 and 10:00)	Ecology		33	Wo 18 Okt (09:00 en 10:00)	Ekologie
	34	Thurs 19 Oct (12:00) and Fri 20 Oct (08:00)	Ecology		34	Do 19 Okt (12:00) en Vry 20 Okt (08:00)	Ekologie
13	35	Mon 23 Oct (08:00 and 11:00)	Ecology	13	35	Ma 23 Okt (08:00 en 11:00)	Ekologie
	36	Wed 25 Oct (09:00 and 10:00)	Ecology		36	Wo 25 Okt (09:00 en 10:00)	Ekologie
	37	Thurs 26 Oct (12:00) & Fri 27 Oct (08:00)	Ecology		37	Do 26 Okt (12:00) & Vry 27 Okt (08:00)	Ekologie