



**Stellenbosch**

UNIVERSITY  
IYUNIVESITHI  
UNIVERSITEIT

SCIENCE

EYENZULULWAZI NGEZENDALO

NATUURWETENSKAPPE

## Biology 124 – Cell Biology

### Short description of the module

This module involves the study of life at cellular level, as well as the study of evolution as an ongoing process on Earth. It consists of four submodules: Biochemistry, Cytology, Genetics and Evolution.

## Biologie 124 – Selbiologie

### Kort beskrywing van die module

Hierdie module handel oor die studie van lewe op sellulêre vlak, sowel as die studie van evolusie as 'n deurlopende proses op Aarde. Dit bestaan uit vier submodules: Biochemie, Sitologie, Genetika en Evolusie.

## Module summary

<b>Name</b>	Biology 124 – Cell Biology
<b>Duration</b>	1st semester
<b>Type</b>	Compulsory for all BSc degree programmes in the Biological Sciences.
<b>Academic commitment*</b>	16 credits = 160 notional hours 12 hours per week for lectures, tutorials/practicals and studying.
<b>Scheduled learning opportunities</b>	3 lectures (L) per week 1 tutorial OR practical per week
<b>Assessment option</b>	Option 2: A1 (T1 and T2) and A2 each cover different parts of the syllabus; A3 covers the entire syllabus.
<b>Language option</b>	Option 1: lectures, practicals and tutorials are in English or Afrikaans (separate classes).
<b>Mode of offering</b>	Face-2-Face
<b>Corequisites / Prerequisites / Pass prerequisites**</b>	NA

*\*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

<b>Naam</b>	Biologie 124 - Selbiologie
<b>Duur</b>	1e semester
<b>Tipe</b>	Verpligtend vir alle BSc graadprogramme in die Biologiese Wetenskappe.
<b>Akademiese verbintenis*</b>	16 krediete – 160 veronderstelde leerure 12 ure per week vir lesings, tutoriale/praktika en studeer.
<b>Geskeduleerde leergeleenthede</b>	3 lesings (L) per week 1 tutoriaal OF prakties per week
<b>Assesseringsopsie</b>	Opsie 2: A1 (T1 en T2) en A2 elk dek verskillende dele van die sillabus. A3 dek die hele sillabus.
<b>Taalopsie</b>	Opsie 1: lesings, praktika en tutoriale is in Engels of Afrikaans (aparte klasse).
<b>Modus van aanbieding</b>	In persoon
<b>Nowevereistes / Voorvereistes / Slaagvoorvereistes**</b>	NVT

*\*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

### After completion of this module, you

- will have a sound knowledge and understanding of the most important biological concepts and processes at cellular level.
- will have basic knowledge and understanding of evolution as an ongoing process.
- will have acquired certain generic skills during the laboratory practicals and tutorials. Emphasis is placed on light microscopy as a method of observation and interpretation of what is observed.

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

## Uitkomst

### Na voltooiing van hierdie module,

- sal jy 'n grondige kennis en begrip hê van die mees belangrike biologiese konsepte en prosesse op sellulêre vlak.
- sal jy 'n basiese kennis en begrip hê van evolusie as 'n deurlopende proses.
- sal jy sekere generiese vaardighede aangeleer het tydens die laboratorium praktika en tutoriale. Klem word gelê op ligmikroskopie as 'n metode van observasie en interpretasie van wat waargeneem kan word.

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

## 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.

Groups	Time	Venue
Group 1.1 Afrikaans	Monday 08:10 Wednesday 09:10 Thursday 12:10	All lectures in A203, JC Smuts Building
Group 1.2 English	Monday 08:10 Wednesday 09:10 Thursday 12:10	All lectures in Van der Sterr Building 2121 (Entrance 1)
Group 2.1 Afrikaans	Monday 12:10 Wednesday 08:10 Friday 09:10	All lectures in A203, JC Smuts Building
Group 2.2 English	Monday 12:10 Wednesday 08:10 Friday 09:10	All lectures in Krotoa Building 1001

## Lectures

The Bio 124 module will be offered on campus during face-face lectures. Attendance of lectures is very important and therefore strongly recommended. See the lecture schedule [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.

Groep	Tyd	Lokaal
Groep 1.1 Afrikaans	Maandag 08:10 Woensdag 09:10 Donderdag 12:10	Alle lesings in A203, JC Smuts Gebou
Groep 1.2 Engels	Maandag 08:10 Woensdag 09:10 Donderdag 12:10	Alle lesings in Van der Sterr Gebou 2121 (Ingang 1)
Groep 2.1 Afrikaans	Maandag 12:10 Woensdag 08:10 Vrydag 09:10	Alle lesings in A203, JC Smuts Gebou
Groep 2.2 Engels	Maandag 12:10 Woensdag 08:10 Vrydag 09:10	Alle lesings in Krotoa Gebou 1001

## Lesings

Die Bio 124 module sal op kampus aangebied word tydens in-persoon lesings. Bywoning van lesings is baie belangrik en word daarom sterk aanbeveel. Sien die lesingskediule [hier](#).

## Tutorials and Practicals

The module will offer a weekly tutorial OR laboratory practical during the semester. Your group will be communicated on SUNLearn. See the weekly schedule here:

WEEK	DATES	SUBMODULE
1	13, 15 & 16 Feb 2024	NO PRACTICAL or TUTORIAL
2	20, 22 & 23 Feb 2024	Biochemistry Tutorial 1
3	27 & 29 Feb; 01 March 2024	Biochemistry Tutorial 2
4	05, 07 & 8 March 2024	Biochemistry Tutorial 3
5	12, 14 & 15 March 2024	Cytology Practical 1
6	19, 21 & 22 March 2024	No practical on 19 and 21 March, BUT  Cytology Practical 2 on Friday 22 March
7	26, 28 & 29 March 2024	Cytology Practical 2 on 26 and 28 March. NO practical on 29 March.
8	09, 11 & 12 April 2024	Genetics Tutorial 1
9	16, 18 & 19 April 2024	Genetics Tutorial 2
10	23, 25 & 26 April 2024	Genetics Tutorial 3
11	30 April, 02 & 03 May 2024	Evolution Online Assignment
12	07, 09 & 10 May 2024	Evolution Online Assignment
13	14, 16 & 17 May 2024	NO PRACTICAL or TUTORIAL

## Tutoriale and Praktika

Die module sal weekliks 'n tutoriaal OF laboratoriumprakties aanbied gedurende die semester. U groep sal op SUNLearn gekommunikeer word. Sien die weeklikse skedule hier:

WEEK	DATUM	SUBMODULE
1	13, 15 & 16 Feb 2024	GEEN PRAKTIKA of TUTORIAAL
2	20, 22 & 23 Feb 2024	Biochemie Tutoriaal 1
3	27 & 29 Feb; 01 Maart 2024	Biochemie Tutoriaal 2
4	05, 07 & 8 Maart 2024	Biochemie Tutoriaal 3
5	12, 14 & 15 Maart 2024	Sitologie Prakties 1
6.	19, 21 & 22 Maart 2024	Geen prakties op 19 en 21 Maart, MAAR Sitologie Prakties 2 op Vrydag 22 Maart
7.	26, 28 & 29 Maart 2024	Sitologie Prakties 2 op 26 en 28 Maart. Geen prakties op 29 Maart.
8.	09, 11 & 12 April 2024	Genetika Tutoriaal 1
9.	16, 18 & 19 April 2024	Genetika Tutoriaal 2
10.	23, 25 & 26 April 2024	Genetika Tutoriaal 3
11.	30 April, 02 & 03 Mei 2024	Evolusie Aanlyn Opdrag
12.	07, 09 & 10 Mei 2024	Evolusie Aanlyn Opdrag
13.	14, 16 & 17 Mei 2024	GEEN PRAKTIKA of TUTORIAAL

## 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 Biochemistry	Biochemistry JC Smuts Building	Dr N Sheik Abdul (convener) <a href="mailto:sheikn@sun.ac.za">sheikn@sun.ac.za</a>  Dr M Beukes <a href="mailto:mervynbeukes@sun.ac.za">mervynbeukes@sun.ac.za</a>
2 Cytology	Botany and Zoology Natural Science Building	Dr M Mouton ( <b>module coordinator</b> and convener) <a href="mailto:marnel@sun.ac.za">marnel@sun.ac.za</a>  Dr V Rambau <a href="mailto:rvr2@sun.ac.za">rvr2@sun.ac.za</a>
3 Genetics	Genetics JC Smuts Building	Dr M le Roux (convener) <a href="mailto:marlonleroux@sun.ac.za">marlonleroux@sun.ac.za</a>  Ms M Engelbrecht <a href="mailto:mengelbr@sun.ac.za">mengelbr@sun.ac.za</a>
4 Evolution	Botany and Zoology Natural Sciences Building	Prof A Ellis (convener) <a href="mailto:agellis@sun.ac.za">agellis@sun.ac.za</a>  Prof C Matthee <a href="mailto:cam@sun.ac.za">cam@sun.ac.za</a>

## Dosente

Submodule	Departement	Dosente
1 Biochemie	Biochemie JC Smuts Gebou	Dr N Sheik Abdul (sameroeper) <a href="mailto:sheikn@sun.ac.za">sheikn@sun.ac.za</a>  Dr M Beukes <a href="mailto:mervynbeukes@sun.ac.za">mervynbeukes@sun.ac.za</a>
2 Sitologie	Plant- en Dierkunde Natuurwetenskappe Gebou	Dr M Mouton ( <b>module koördineerder</b> en sameroeper) <a href="mailto:marnel@sun.ac.za">marnel@sun.ac.za</a>  Dr V Rambau <a href="mailto:rvr2@sun.ac.za">rvr2@sun.ac.za</a>
3 Genetika	Genetika JC Smuts Gebou	Dr M le Roux (sameroeper) <a href="mailto:marlonleroux@sun.ac.za">marlonleroux@sun.ac.za</a>  Ms M Engelbrecht <a href="mailto:mengelbr@sun.ac.za">mengelbr@sun.ac.za</a>
4 Evolusie	Plant- en Dierkunde Natuurwetenskappe Gebou	Prof A Ellis (sameroeper) <a href="mailto:agellis@sun.ac.za">agellis@sun.ac.za</a>  Prof C Matthee <a href="mailto:cam@sun.ac.za">cam@sun.ac.za</a>

## 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 assessments (conducted on campus) covering the subject matter of the sub-modules as set out in the table on the next page:

- **A1T1** (also known as the Early Assessment),
- **A1T2** assessment and the
- **A2** assessment

These three assessments contribute **80%** to the final mark. The remaining **20%**, is the 'practical mark', comprises quizzes, practical or tutorial assessments (on SUNLearn or face-to-face). A 40% subminimum applies to the practical mark.

If a student wrote all three assessments (the A1T1, A1T2 and A2) and achieved a final mark of 50% and higher, the student passes the module and no further assessment is needed.

The **A3** assessment serves as a sickness test for any one of the A1T1, A1T2 or A2 assessments missed with a legitimate excuse. The **A3** therefore covers the entire syllabus of the semester.

The **A3** assessment also serves 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 has already passed the module after the A2, but who wants to improve their final mark. In this case, the student needs to notify Mrs Nel ([acnel@sun.ac.za](mailto:acnel@sun.ac.za)) that they wish to write the A3 assessment.

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 geskeduleerde assesserings onder toesig (op kampus) oor die vakinhoud van sub-modules soos uiteen gesit in die table op die volgende bladsy:

- **A1T1** (ook bekend as die Vroeë Assessering),
- **A1T2** assessering en die
- **A2** assessering.

Hierdie drie assesserings dra **80%** by tot die finale punt. Die oorblywende **20%**, is die 'praktiese punt' wat 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.

Indien 'n student al drie die assesserings (A1T1, A1T2 en A2) afgelê het en 'n finale punt van 50% en hoër behaal het, slaag die student die module en word geen verdere assessering vereis nie.

Die **A3** assessering dien as 'n siektetoets vir enige een van die A1T1, A1T2 of A2 assesserings gemis met geldige redes. Die A3 dek daarom die hele sillabus van die semester.

Die **A3** assessering dien ook as 'n addisionele assesserings-geleentheid 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 moet die student Me Nel ([acnel@sun.ac.za](mailto:acnel@sun.ac.za)) in kennis stel van hul intensie om die A3 af te lê.



To pass the module, students must complete ALL compulsory assessments – such assessments are thus mandatory!

Method of assessment	Description and Content	#	Allocated marks	Criteria and Status	Dates
Quizzes, Tutorial and Practical assessments	Weekly online or in-person assessments regarding the content of classes, the tutorial or practical.		20% of final mark	40% subminimum  Compulsory assessments	Weekly
A1T1 (Early assessment)	<b>Topic: Biochemistry</b> Scheduled invigilated evening assessment on campus.	1	Biochemistry: 80 marks	Compulsory assessment	15 March 17:30
A1T2 assessment	<b>Topic: Cytology and Genetics.</b> Scheduled invigilated evening assessment on campus.	1	Cytology: 45/80 marks  Genetics: 35/80 marks	Compulsory assessment	16 April 17:30
A2 assessment	<b>Topic: Genetics and Evolution.</b> Scheduled invigilated assessment on campus.	1	Genetics: 26/80 marks  Evolution: 54/80 marks	Compulsory assessment	30 May 09:10
A3 assessment	<b>Sickness Test and additional assessment opportunity</b> for all four submodules.  Scheduled invigilated assessment on campus.	1	This assessment covers the entire syllabus: Biochemistry: 25/80 marks Cytology: 16/80 marks Genetics: 21/80 marks Evolution: 18/80 marks	Optional Additional assessment opportunity for most students	21 June 14:00

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

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

Om die module te slaag moet studente alle verpligte assesserings aflê – sulke assesserings is dus verpligtend!

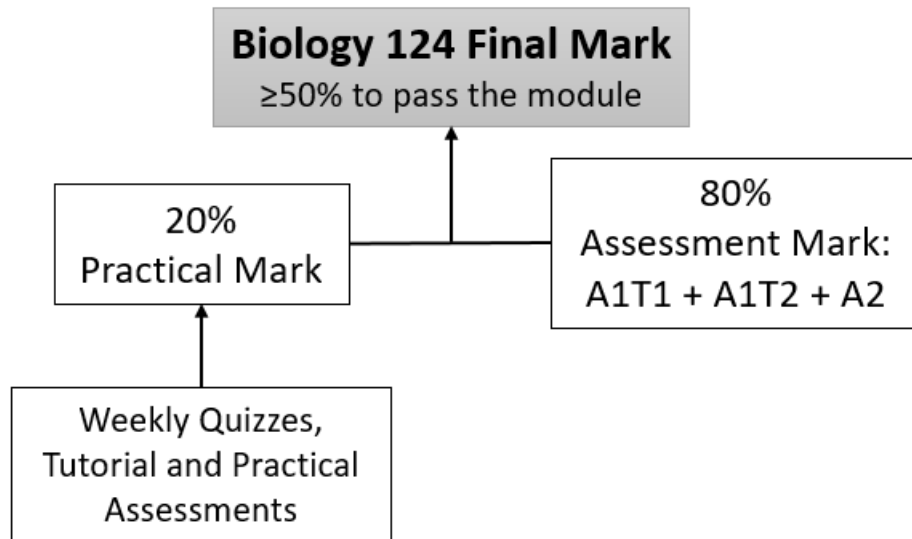
Metode van assessering	Beskrywing en Inhoud	#	Punte toegeken	Kriteria en Status	Datums
Quizzes, Tutoriaal en Praktiese assesserings	Weeklikse aanlyn of in-persoon assesserings wat handel oor die inhoud van die klasse, tutoriaal of prakties.		20% van die finale punt	40% subminimum  Verpligte assesserings	Weekliks
A1T1 (Vroeë assessering)	<b>Onderwerp: Biochemie</b> Geskeduleerde aand assessering op kampus onder toesig.	1	Biochemie: 80 punte	Verpligte assessering	15 Maart 17:30
A1T2 assessering	<b>Onderwerp: Sitologie en Genetika.</b> Geskeduleerde aand assessering op kampus onder toesig.	1	Sitologie_ 45/80 punte  Genetika: 35/80 punte	Verpligte assessering	16 April 17:30
A2 assessering	<b>Onderwerp: Genetika and Evolusie.</b> Geskeduleerde assessering op kampus onder toesig.	1	Genetika: 26/80 punte  Evolusie: 54/80 punte	Verpligte assessering	30 Mei 09:10
A3 assessering	<b>Siektetoets en addisionele assesseringsgeleentheid</b> vir al vier submodules.  Geskeduleerde assessering op kampus onder toesig.	1	Hierdie assessering dek die hele sillabus: Biochemie: 25/80 punte Sitologie: 16/80 punte Genetika: 21/80 punte Evolusie: 18/80 punte	Opsioneel: Addisionele assesseringsgeleentheid vir die meeste studente	21 Junie 14:00

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

## Calculation of final marks

A student passes the module if

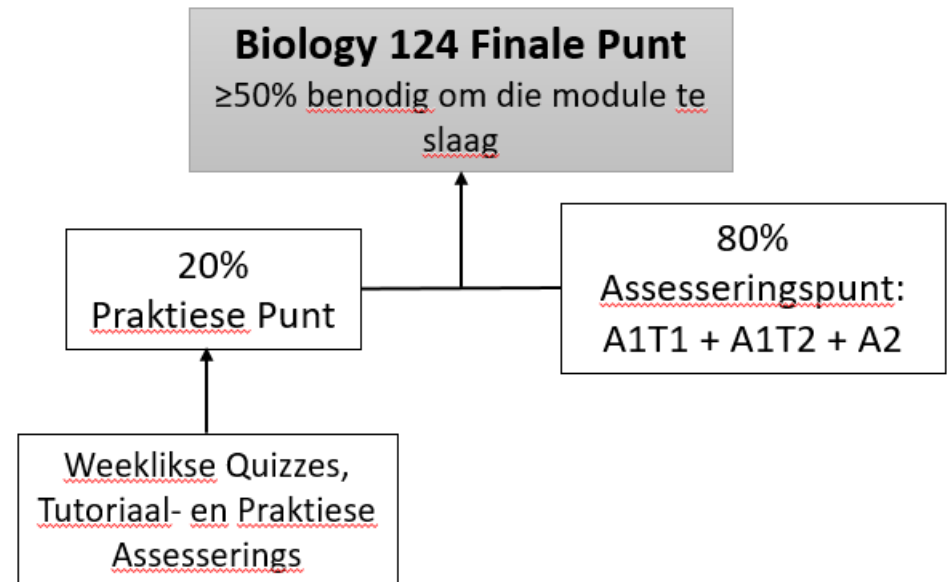
- their final mark is 50% or above, AND
- they achieved a 40% subminimum for the practical component.



## Berekening van finale punte

'n Student slaag die module indien

- hul finale punt 50% en hoër is, EN
- hulle 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](mailto: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](mailto: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](mailto:acnel@sun.ac.za)).

## 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](mailto:acnel@sun.ac.za)).

## Addressing challenges

For any complaints, the first port of call is the class representative, Mrs Nel ([acnel@sun.ac.za](mailto: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](mailto: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 [US Plagiaatbeleid](#) definieer plagiaat as: "Die gebruik van ander se idees of materiaal [insluitend KI generatiewe instrumente, soos ChatGPT of Bing] sonder [toepaslike] erkenning, of die hergebruik van 'n persoon se eie voorheen geëvalueerde werk of gepubliseerde materiaal sonder erkenning (selfplagiaat)." Sodanige erkenning sal insluit die verwysing na die bron van voorheen uitgedrukte idees of gepubliseerde materiaal, of die erkenning van die bydrae van bv. die KI-instrument, 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.

## Repeaters

Students who must repeat this module will be granted practical exemption if a practical mark of 50% and above was obtained in the previous year of studying this module. Please note that this allowance is only valid for one year, and only if the module is repeated in the year directly after failing it. If not, then all practical components and assessments will have to be repeated to pass the module.

To qualify for exemption students **must apply for 'practical exemption'** with Mrs Nel ([acnel@sun.ac.za](mailto:acnel@sun.ac.za)) **before** Friday, 23<sup>rd</sup> of February.

## Herhalers

Studente wat hierdie module moet herhaal sal vrystelling van prakties verleen word indien 'n praktiese punt van 50% en hoër behaal was in die vorige jaar wat die module geneem was. Neem asb kennis dat hierdie vergunning slegs een jaar geldig is, en slegs indien die module in die daaropvolgende jaar herhaal word. Indien nie, sal alle praktiese komponente en assesserings herhaal moet word om die module te slaag.

Om te kwalifiseer vir vrystelling moet studente **aansoek doen om 'praktiese vrystelling'** by Mev Nel ([acnel@sun.ac.za](mailto:acnel@sun.ac.za)) **voor** Vrydag, 23 Februarie.

## 2024 BIOLOGY 124: Lecture Calendar

WEEK	LECTURE	DATE AND TIME	Sub-Module
1	1	Mon 12 Feb. (08:10 and 12:10)	INTRODUCTION
	2	Wed 14 Feb. (8:10 and 09:10)	Biochemistry 1
	3	Thurs 15 Feb. (12:10) and Fri 16 Feb. (09:10)	Biochemistry 2
2	4	Mon 19 Feb. (8:10 and 12:10)	Biochemistry 3
	5	Wed 21 Feb. (8:10 and 09:10)	Biochemistry 4
	6	Thurs 22 Feb. (12:10) and Fri 23 Feb. (09:10)	Biochemistry 5
3	7	Mon 26 Feb. (8:10 and 12:10)	Biochemistry 6
	8	Wed 28 Feb (8:10 and 09:10)	Biochemistry 7
	9	Thurs 29 Feb (12:10) and Fri 01 March (09:10)	Biochemistry 8
4	10	Mon 04 March (8:10 and 12:10)	Biochemistry 9
	11	Wed 06 March (8:10 and 9:10)	Biochemistry 10
	12	Thurs 07 March (12:10) and Fri 08 March (09:10)	Biochemistry 11
5	13	Mon 11 March (8:10 and 12:10)	Cytology 1
	14	Wed 13 March (8:10 and 09:10)	Cytology 2
	15	Thurs 14 March (12:10) and Fri 15 March (09:10)	Cytology 3
6	16	Mon 18 March (8:10 and 12:10)	Cytology 4
	17	Wed 20 March (8:10 and 09:10)	Cytology 5
		Thurs 21 March (12:10) and Fri 22 March (09:10)	NO LECTURES
7	18	Mon 25 March (8:10 and 12:10)	Cytology 6
	19	Wed 27 March (8:10 and 09:10)	Cytology 7
		Thurs 28 March (12:10) & Fri 29 March 09:10	NO LECTURES
RECESS 29 March – 07 April			
8	20	Mon 08 April (8:10 and 12:10)	Genetics 1
	21	Wed 10 April (8:10 and 09:10)	Genetics 2

## 2024 BIOLOGIE 124: Lesing Kalender

WEEK	LESING	DATUM EN TYD	Sub-Module
1	1	Ma 12 Feb. (8:10 en 12:10)	INLEIDING
	2	Wo 14 Feb. (8:10 en 09:10)	Biochemie 1
	3	Do 15 Feb. (12:10) en Vr 16 Feb. (09:10)	Biochemie 2
2	4	Ma 19 Feb. (8:10 en 12:10)	Biochemie 3
	5	Wo 21 Feb. (8:10 en 09:10)	Biochemie 4
	6	Do 22 Feb. (12:10) en Vr 23 Feb. (09:10)	Biochemie 5
3	7	Ma 26 Feb. (8:10 en 12:10)	Biochemie 6
	8	Wo 28 Feb (8:10 en 09:10)	Biochemie 7
	9	Do 29 Feb (12:10) en Vr 01 Maart (09:10)	Biochemie 8
4	10	Ma 04 Maart (8:10 en 12:10)	Biochemie 9
	11	Wo 06 Maart (8:10 en 9:10)	Biochemie 10
	12	Do 07 Maart (12:00) en Vr 08 Maart (09:10)	Biochemie 11
5	13	Ma 11 Maart (8:10 en 12:10)	Sitologie 1
	14	Wo 13 Maart (8:10 en 09:10)	Sitologie 2
	15	Do 14 Maart (12:10) en Vr 15 Maart (09:10)	Sitologie 3
6	16	Ma 18 Maart (8:10 en 12:10)	Sitologie 4
	17	Wo 20 Maart (8:10 en 09:10)	Sitologie 5
		Do 21 Maart (12:10) en Vry 22 Maart (09:10)	GEEN LESINGS
7	18	Ma 25 Maart (8:10 en 12:10)	Sitologie 6
	19	Wo 27 Maart (8:10 en 09:10)	Sitologie 7
		Do 28 Maart (12:10) en Vr 29 Maart 09:10	GEEN LESINGS
RESES 29 Maart – 07 April			
8	20	Ma 10 April (8:10 en 12:10)	Genetika 1
	21	Wo 10 April (8:10 en 09:10)	Genetika 2

	22	Thurs 11 April (12:10) and Fri 12 April (09:10)	Genetics 3		22	Do 11 April (12:10) en Vry 12 April (09:10)	Genetika 3
9	23	Mon 15 April (8:10 and 12:10)	Genetics 4	9	23	Ma 15 April (8:10 en 12:10)	Genetika 4
	24	Wed 17 April (8:10 and 09:10)	Genetics 5		24	Wo 17 April (8:10 en 09:10)	Genetika 5
	25	Thurs 18 April (12:10) & Fri 19 April (09:10)	Genetics 6		25	Do 18 April (12:10) en Vr 19 April (09:10)	Genetika 6
10	26	Mon 22 Aril (8:10 and 12:10)	Genetics 7	10	26	Ma 22 Aril (8:10 en 12:10)	Genetika 7
	27	Wed 24 April (8:10 and 09:10)	Genetika 8		27	Wo 24 April (8:10 en 09:10)	Genetika 8
	28	Thurs 25 April (12:10) and Fri 26 April (09:10)	Evolution 1		28	Do 25 April (12:10) en Vry 26 April (8:10)	Evolusie 1
11	29	Mon 29 April (8:10 and 12:10)	Evolution 2	11	29	Ma 29 April (8:10 en 12:10)	Evolusie 2
		Wed 01 May	PUBLIC HOLIDAY			Wo 01 Mei	PUBLIEKE VAKANSIEDAG
	30	Thurs 02 May (12:10) & Fri 03 May (09:10)	Evolution 3		30	Do 02 Mei (12:10) en Vr 03 Mei (09:10)	Evolusie 3
12	31	Mon 06 May (8:10 and 12:10)	Evolution 3	12	31	Ma 06 Mei (8:10 en 12:10)	Evolusie 4
	32	Wed 08 May (8:10 and 09:10)	Evolution 5		32	Wo 08 Mei (8:10 en 09:10)	Evolusie 5
	33	Thurs 09 May (12:10) and Fri 10 May (09:10)	Evolution 6		33	Do 09 Mei (12:10) en Vr 10 Mei (09:10)	Evolusie 6
13	34	Mon 13 May (8:10 and 12:10)	Evolution 7	13	34	Ma 13 Mei (8:10 en 12:10)	Evolusie 7
	35	Wed 15 May (8:10 and 09:10)	Evolution 8		35	Wo 15 Mei (8:10 en 09:10)	Evolusie 8
	36	Thurs 16 May (12:10) & Fri 17 May (09:10)	Evolution 9		36	Do 16 Mei (12:10) en Vr 17 Mei (09:10)	Evolusie 9