



GENERAL INFORMATION FOR
MISSIONVALE **BOTANY** STUDENTS

2010



Department of Botany

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Welcome to the Department of Botany. We hope that you will have a good year with us and that you will achieve your academic goals.

This booklet contains the information you will need to organise your botanical studies for the year. It also contains vital information pertaining to deadlines, policies, safety and academic support. It is in your interest to work through most of this document.

1. Objectives of the Botany Department

The Department of Botany is committed to guide you in the acquisition of scientific skills and insights. We strive for excellence in academic achievement and purposeful research.

We aim to assist you to develop:

- An understanding of concepts and principles as well as acquired knowledge in science - particularly Botany;
- The ability to use scientific knowledge and skills to solve problems in innovative ways, using appropriate principles, tools, techniques, methodology and logical reasoning;
- Skills used to investigate phenomena related to Botany and science and to understand the changing and contested nature of knowledge in science;
- The ability to use oral and written modes of communication through the effective preparation, organisation and presentation of research;
- The ability to use science and technology effectively, critically and safely, while showing responsibility to the environment and the health of others;
- An understanding of the world through integration of knowledge and skills;
- The ability to transfer knowledge across contexts;
- The ability to work effectively in a team, collaborating to develop commitment, respect, shared responsibility, interpersonal relationships and managerial skills in order to achieve a set purpose.

2. Staff

At University, you are a student and not a pupil. The academic staff are not your adversaries. This means that you are a partner in your own education and not a reluctant bystander. The success of your studies depends on **your contribution** and not on the authoritarian discipline of the lecturers. Remember that the lecturers need your respect, cooperation and participation as much as you need theirs. Mutual consideration between students and lecturers will result in effective education. Try to be considerate of the lecturers and other students. The whole system will work better that way.

The Botany staff who will interact with you are:

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Head of Department

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Subjects taught: Plant structure, Ecology

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3. Extended studies

Dates: _____ **Last date for registration:**

Term 1: 1 February to 19 March	5 March
Term 2: 23 March to 20 May	30 March
Term 3: 19 July to 3 September	2 August
Term 4: 6 September to 29 October	10 September

Autumn Recess: 2 – 11 April

Winter Recess: 12 June – 18 July

Spring Recess: 24 September – 3 October

Summer Recess starts: 27 November

Exams (terms 1 & 2): 24 May to 11 June

Exams (terms 3 & 4): 3 to 26 November

Public Holidays

Fri	1 January	New Year's Day
Sun	21 March	Human Rights Day
Mon	22 March	Public Holiday
Fri	2 April	Good Friday
Mon	5 April	Family Day
Mon	26 April	Public Holiday
Tue	27 April	Freedom Day
Sat	1 May	Workers Day
Wed	16 June	Youth Day
Mon	9 August	Women's Day
Fri	24 September	Heritage Day
Thu	16 December	Day of Reconciliation
Sat	25 December	Christmas Day
Sun	26 December	Day of Goodwill
Mon	27 December	Public Holiday

3.1 First-year modules

BIO101 – Introduction to biology

Equivalent to: BOT110 and ZOO110

Botanical Content: Plant cytology, genetics, biotechnology and cell metabolism.

BOT125 - Plant structure

Equivalent to: BOT120

Content: Plant tissues, anatomy and morphology.

BOT135 - Plant evolution and systematics

Equivalent to: BOT130

Content: Evolution and an introduction to plant systematics, including life histories.

BIO104 – Introductory ecology

Equivalent to: BOT140 and ZOO140

Botanical Content: Ecological principles; toxicology; ethnobotany and environmental management

3.2 Prescribed books

The prescribed text for first-year modules is: Mauseth, J.D. 2009. *Botany. An Introduction to Plant Biology*. Fourth edition, Jones and Bartlett Publishers, Sudbury. 624+43 pp.

This text will be used extensively during lectures and practicals. Please ensure that you have a copy by the first lecture.

3.3 Language

Lectures are presented in English. Students whose home language is not English are requested to ask the lecturer to clarify the content should they not understand.

3.4 Photographs

Each student will be photographed during the first practical. If you were unable to attend the first practical of the year, please see your lecturer.

3.5 Consultation

Lecturers are available for consultation after completion of lectures and during practicals. Lecturers will also be available for consultation at other times by appointment. Students are requested not to contact lecturers at their homes unless an emergency arises.

3.6 Practical

Practical session attendance is compulsory. The whole period allocated to practicals will be used. Do not plan any other activities during this period. The lecturer/s for each module will explain how the practical mark will be determined for that module. Only illness is considered a valid reason for absence from practicals. Absence from a practical without submitting a medical certificate will result in a mark of 0% awarded for that practical.

3.7 Class attendance

Undergraduate students must commence attending lectures in all modules from the very first day that lectures start, even if they have not registered. An undergraduate student who does not attend lectures from the first day may be refused permission to register for those modules at a later stage. The Head of the Department will have full discretion to bar from classes any student who does not adhere to the requirements to attend lectures from the first day. Attendance, however, does not imply examination admission. Students must be registered for a module and fees must be paid for that module before you may write the examination or obtain a mark.

The onus is solely on the student to check that they are registered and to check the rules and requirements of each module for which they are registered.

Attendance of classes presented at the Nelson Mandela Metropolitan University is compulsory. A student must attend 90% of the lectures in each module to obtain a DP (duly performed) certificate. Only illness is considered a valid reason for being absent from classes. Absence from more than two double lectures without submitting a medical certificate will result in loss of a DP certificate (see 3.14).

It is unreasonable to expect a lecturer to repeat work if you have not attended a class. Announcements of test dates and assignment schedules are communicated at class. Failure to attend class is not an excuse for missing tests or deadlines.

3.8 Tests

The lecturer in consultation with the class will set test dates during each module. Each lecturer will disclose the composition of the test mark at the beginning of the module.

3.9 Absence from tests or exams

Only illness is considered to be a valid reason for being absent from tests or exams. Exemption from tests or the granting of an aegrotat (special test or exam) is dependent on submission of a medical certificate. Please make sure that you have a blank NMMU medical certificate in your possession so that if you have to visit a doctor you do not have to make a second visit to have the form completed. If practicals are missed due to illness, the mark for that practical will not count towards the class mark. A mark of 0% will be recorded for practicals where no exemption is granted.

Leave of absence for sport is granted only for approved South African University activities and for participation at first class provincial and national levels. Such exemption is dependent on **prior acceptance** by the head of department of written documentary evidence submitted well in advance. Exemption for other extra-curricular activities may also be considered, dependent on similar submission being made to the head of department. Submissions after the event will not be considered.

A **special examination** may be granted to students who, by reason of illness or other special circumstances, have been unable to sit or complete an examination.

3.10 Copying and plagiarism

It is a serious offence to pass another student's work off as your own. At no stage is copied work acceptable as a submission for any assignment or practical, and students who copy the work of others run the risk of disciplinary action. A declaration of ownership of the text and ideas will be required for all assignments. Please refer to Section 6 for further information on copyright.

3.11 Mark allocation

The final mark for each module will be calculated as the average of the class and exam marks. The lecturer/s for each module will determine the composition of the class mark for that module. A pass mark is 50% or

higher. Marks will be posted on the Botany Department notice board on the first floor where they will appear against your student number.

A minimum class mark of 40% is required for examination entry into any Botany module at all year levels. However, experience has shown that it is difficult to pass the module if your class mark is below 50%. It is important to work consistently throughout the module to reduce stress at exam time.

The subminimum for exam marks is also 40%.

3.12 Duly Performed (DP) certificates

Students who have failed to obtain a DP will be notified by the publication of their student numbers on the Botany Department notice board on the first floor. Students will lose their DP certificates if they fail to attend more than two double lectures per module without a medical certificate. The DP lists will be published by the last day of lectures before the exam.

3.13 Supplementary examinations

A supplementary examination:

- will be granted if the student has completed the original examination but failed the module.
- will be granted if the final module mark is between, and including **45 and 49%**.
- will be granted if the student requires only two term modules in order to obtain the degree.
- will **not** be granted for special examinations.
- will be written at a time and venue set by the examinations office.
- mark will stand even if it is lower than the examination mark.

If a student fails to attend the supplementary examination for **any** reason (including illness), the examination mark will be awarded.

The final mark after a supplementary examination may not exceed 50%.

3.14 Safety, Health and Environment instructions for undergraduate laboratories.

In order to ensure that you get the most from your courses it is important to be fully aware of the hazards and potential dangers in your specific field of study.

The NMMU has decided to make the university a safe and enjoyable environment in which to work and study, while not posing a health risk to staff or students. Steps have already been taken to achieve these goals, one of the most important being the education of students in safe laboratory practice. As part of your induction into the department we are committed to informing you of appropriate actions to be taken to ensure your safety.

Please read the following laboratory rules carefully, then **sign the declaration page provided in the back of this booklet, and hand it in the lecturer at the commencement of the first practical**. Bear in mind that these rules are not comprehensive but are there to guide you in basic safe laboratory procedures. When using chemicals or participating in activities not mentioned in this document, consult the lab technicians, demonstrators or appropriate documentation to determine the correct procedures to follow.

Remember, **you have the responsibility for ensuring your safety!**

Please report anything you may consider unsafe to the Botany SHE representative: **Mr Chan Visagie. His office is 12 01 18 and his email address is chan.visagie@nmmu.ac.za.**

FIRE

In the event that the general alarm is sounded follow the evacuation routes established for the section (they are on the notice board outside the secretary's office):

- Switch off all flames and electrical appliances, and close all gas cylinders
- Evacuate the room. Walk! Do not run.
- Close the door(s) and windows leading to the fire if possible.
- Sound the alarm (if it has not already gone off automatically) and inform Campus Control (x2482 or hash) as soon as possible.
- Vacate the building using the fire escape stairways. NEVER use the lifts.
- Meet at the main Biology Building (12) car park.

- Roll-call will be taken in the car park.

FIRST AIDERS

Campus Health Services are situated below (basement) the Embizweni building (which is adjacent to the Main Building).

There are notices in the Department informing you of the closest trained First Aider.

GENERAL SAFETY REGULATIONS AND PROCEDURES

Dress

- Lab coats (knee-length) are required in laboratories when using chemicals, biohazards or radioisotopes.
- Open shoes, such as sandals (which cover less than 80% of the foot), are prohibited in the lab. You may not walk bare foot anywhere in the department.
- Leave behind protective clothing (e.g. lab coats, gloves) when leaving the laboratory to eat or drink refreshments.
- Long hair must be tied back or otherwise restrained when working with chemicals, biohazards, radioisotopes, or moving machinery.

Physical hazards

- Smoking, eating, drinking, and storage of food, beverages or tobacco is not permitted in laboratories.
- Work places must be kept clean and free of unwanted chemicals, biological specimens, bags and equipment not in use.
- Exits and passageways must be kept clear at all times.
- Familiarize yourself with the location and operation of safety and emergency facilities such as the fire extinguishers, a first aid kit, telephone, emergency wash facilities, fire alarm pull stations and emergency exits.
- Access to emergency equipment (eyewashes, safety showers and fire extinguishers) must not be blocked.
- Wash your hands before leaving the laboratory.
- Walk, do not run, in the lab.
- Sharp objects (syringe needles, broken glass, blades, Pasteur pipettes and cover slips.) should be kept in a container while not in use. After use the container should be labelled before disposal.

- Perform a safety check at the end of each experiment - make sure that gas, water, electricity, vacuum lines, air and heaters have been turned off and decontaminate any equipment or work areas that may have been in contact with hazardous materials.
- Sitting on workbenches is not permitted.

Chemical hazards

- Reagent bottles, empty or full, should not be left on the floor.
- Never pipette hazardous chemicals by mouth.
- Work only with materials when you know their flammability, reactivity, toxicity, safe handling, storage and emergency procedures. There is a file with MSDS (Material Safety Data Sheet) in the postgraduate laboratory.
- All procedures involving the liberation of volatile materials or aerosols of a toxic or flammable nature must be done in a operating (switched on) fume hood.
- Materials contaminated with biohazardous agents should be autoclaved.
- If you have spilled any chemical, it is your responsibility to ensure that it is cleaned (either by yourself, or, if highly toxic, under supervision of the SHE rep). Do not walk away from a spill – that is equivalent to a hit-and-run accident.

3.15 Study methods

Objectives, study materials and learning outcomes will be provided to students during each module. Students will be expected to do supplementary reading. Students should study the relevant section thoroughly **before** it is covered in class. Useful class discussions are only possible if students have prepared in advance. The success of your studies is dependent on the effort you put into your work. The lecturer is a facilitator in this process.

Emphasis is placed on understanding and insight. However, aspects of the work must be memorised so that discussion on the topic is possible. An example of this is terminology unique to Botany. This type of learning must be complete before the lecturer and class can have fruitful discussions.

In order to complete your studies successfully, you will have to manage your time well. Familiarise yourself with the requirements at the beginning of the module, and if you are uncertain about them, consult

the lecturer or head of department. Take careful note of the dates set for assignments and tasks. DO NOT FALL BEHIND. It is very difficult to catch up once you are behind.

Remember that you learn a lot during class. DO NOT SKIP CLASSES. Attendance is entirely to **your** benefit.

Do your own work. You are responsible for learning as much as you can. Submitting someone else's work under your name is a serious offence and disciplinary action will be taken in such cases. Copying other students' work is plagiarism and is illegal. But most importantly, you will not learn anything if you do not do the work yourself.

3.16 Botany BSc Outcomes

Graduates of the programme will:

- B1. Demonstrate an understanding of concepts, principles and acquired knowledge in science – particular Botany – through independent thinking and critical evaluation.
- B2. Use scientific knowledge to design and test hypotheses and skills to solve problems in innovative ways, using appropriate principles, tools, techniques and logical reasoning.
- B3. Develop skills to investigate phenomena related to Botany and demonstrate an understanding of the changing and contested nature of knowledge in science.
- B4. Work effectively in a team, collaborating to develop commitment, respect, shared responsibility, interpersonal relationships and managerial skills, to achieve a set purpose.
- B5. Use oral and written modes of communication effectively in English, through the preparation, organisation and presentation of research.
- B6. Use science and technology effectively, critically and safely, while showing responsibility to the environment and the health of others.
- B7. Demonstrate an understanding of the world through the ability to transfer knowledge across contexts and integrate knowledge and skills.

Graduates of the programme will be aware of:

- B8. A variety of thinking and learning skills.
- B9. Being the consciousness of society in environmental issues.
- B10. Contextualising environmental issues in a cultural and social framework
- B11. The career opportunities available in the many fields that make up the discipline of Botany and their application in the community.

B12. Entrepreneurial opportunities through exposure to examples of the application of botanical knowledge.

4. Copyright

It is a serious offence to pass another people's work off as your own. At no stage is copied material (including from the Internet) acceptable as a submission for any assignment, practical, project or thesis. Students who copy the work of others run the risk of disciplinary action. Please read through the following set of frequently asked questions and answers. During 2010 all major work submitted must be accompanied by a declaration of ownership.

What is protected under the Copyright Act?

Literary (whether in written, printed or digital form), musical and artistic works, cinematograph films, sound recordings, broadcasts, programme-carrying signals, computer programs and published editions.

May I freely use material from a book that is out of print?

Out of print does not mean out of copyright. Copyright of the content lasts for 50 years after the death of the author. Copyright of a published edition lasts for 50 years from the date of publication.

How much text may I quote verbatim, fully acknowledging the source, without applying for copyright permission?

There is no set rule. You should not quote more than you need to quote to make your point, and you must always acknowledge the source and the author. A rule of thumb, which has no statutory force, is that if you intend to quote more than a total of 300-400 words from anyone source you have to apply for copyright permission.

May I use a figure, diagram or photograph from an existing publication without applying for copyright permission?

There is no copyright of ideas or of information, but there is copyright in the way they are expressed. Therefore, you have two options. You can either apply for copyright permission, or you can change the figure or diagram, imbuing it with some creative effort of your own, and then acknowledge the derivation. It is legally acceptable to present the same information in an original, value-added manner, as long as it substantially differs from the genuine artistic work. A photograph cannot be so altered, and permission is always required.

Can I use material (text or graphics) from journals, magazines and newspapers without applying for copyright?

There is no copyright of news of the day that is simply an item of press information. You must apply for permission, however, if you use any other material (text or graphics) from a journal, magazine or newspaper. This particularly applies to cases where an article has been researched, analyses a situation or expresses an opinion. In other words, you would not need to apply for permission if you quoted from an article about a local building that has burnt down. However, you would need to apply for permission if you quoted from an article that analysed the psychology behind arson attacks.

May I use a cartoon from an existing publication and replace the words in the bubbles without applying for copyright permission?

No.

May I use material from another source in supplementary material (transparencies, slide shows, question banks, and so on) developed to accompany a book, without applying for copyright permission?

No.

To whom should you apply for copyright permission?

According to standard author contracts worldwide, the author is responsible for copyright. Application should be made to the author for permission to use his/her work.

Who is responsible for paying copyright permission fees?

In accordance with standard author contracts worldwide, the author who has used copyrighted material is responsible for paying copyright permission fees. Van Schaik Publishers can pay the fees as an advance against royalties.

To whom must I apply for copyright permission?

In most instances, the publisher of the material is the holder of copyright. In instances where the publisher does not hold copyright, the publisher will refer you to the copyright holder.

Where can I get help with tracing publishers' addresses and contact details?

The Internet is a valuable resource. The Publishers' Association of South Africa (PASA) lists contact details for most South African publishers on its website www.publishsa.co.za. Furthermore, many international publishers are listed by country at www.lights.com/publisher.

Acknowledgement

These questions and answers are based on a document developed by Monica Seeber of DALRO, and they have been adapted with her assistance.

Reference

Copyright Act, No 98 of 1978 as amended. (Copies obtainable from The Government Printer, Private Bag X84, Pretoria, 0001.)

5. ICT Usage

NMMU ICT resources are to be used for *bona fide* academic and administrative work, with the understanding that limited personal use is acceptable (e.g. personal correspondence) so long as this use does not:

- directly or indirectly interfere with the University's computing resources.
- disrupt services to other users or deprive them of resources.
- result in any additional costs to the University.
- interfere with the user's employment obligations to the University.

Every User is responsible for taking reasonable steps to protect the ICT resources of the NMMU

All users must apply the university copyright policy and Copyright Acts of the government. It should be specifically noted that Software Piracy is a criminal offence.

The use of NMMU ICT systems must be consistent with all contractual obligations of the University, including limitations defined in software and other licensing agreements.

NMMU ICT resources may not be used for private income-generating or profit making or non-NMMU commercial activities unless specifically authorised by the University.

NMMU ICT resources may not be used in any way that may embarrass or bring discredit to the University.

NMMU ICT resources may not be used for any unlawful activity, such as the creation or transmission of material which is offensive, obscene, defamatory, damaging or fraudulent.

The use of NMMU ICT resources for gaming is prohibited.

No person shall by deliberate, reckless, or unlawful act cause disruption to services, degrade the performance of an information system, or jeopardise the integrity of data networks, computing equipment, systems programs, or other stored information.

Every user has the responsibility to keep their passwords confidential.

No person may access, or attempt to access, or tamper in any way with another user's data without proper authorisation.

Users are further subject to any specific rules or end user agreements entered into with faculties or departments in which they operate.

Users indemnify NMMU against any loss or damage that may result from improper use of the university's ICT infrastructure.

Abuse of NMMU electronic systems and facilities may lead to a withdrawal of electronic communication privileges or disciplinary steps against offenders.

The receiving, storing, downloading, possessing, distributing, accessing or creating of illegal content (as defined above), by any user, will be subject to an investigation and disciplinary action.

All users at NMMU are bound by applicable laws in South Africa and the NMMU will fully co-operate with authorities to provide required information if any User is suspected of illegal activities or cybercrime.

The University may take reasonable steps to enforce its ICT policies through administrative and technical controls including filters, monitoring mechanisms and automated tools.

5.1 Responsibilities

It is the responsibility of every user to become familiar with the policies, procedures and guidelines of the NMMU.

The institution's ICT Services department is responsible for:

- Cross functional ICT services and resources.
- Sustaining users' awareness of this and other Institutional policies related to the use of the Institution's electronic facilities.
- Provide users with guidelines for the proper use of the Institution's electronic facilities.

The institution's management is responsible for taking any necessary action against users who fail and/or refuse to abide by this policy.

The Head of Department reserves the right to amend or supplement any or all of the above rules, regulations and information at her discretion. Such changes will be communicated to you. Please feel free to contact the Head of Department should you experience any difficulties or problems.

A handwritten signature in black ink that reads "E. E. Campbell". The signature is written in a cursive style with a long horizontal line underneath it.

Prof Eileen E Campbell
HEAD OF DEPARTMENT



ACKNOWLEDGEMENT

I, _____ (name),
_____ (student number),

hereby acknowledge that I have read and fully understand the general laboratory rules as laid out before me. I realise that by reading and signing this document I am making my laboratory a safer place to work for me and my fellow students. My failure to comply with these rules constitutes negligence on my side and endangers my life and that of my fellow students.

Signature

Date
