### 7.1.1.2 Postgraduate programmes in Plant Biotechnology

## a) BScHons in Plant Biotechnology

### Programme Code

53287 – 788 (120)

### Specific Admission Requirements

- A BSc degree approved by the Departmental Postgraduate and Academic Committees with an average final mark of at least 60% in the appropriate modules at third-year level. Suitable modules include Biotechnology, Biochemistry, Genetics and Microbiology.
- You are, however, strongly encouraged to take Genetics 314, 315, 344 and 345 for admission to the honours in Plant Biotechnology.
- Additional work may be prescribed depending on your background.

### Closing Date for Applications

Apply online at https://student.sun.ac.za. The number of students admitted to this programme is determined by available research laboratory space.

## Duration of Programme

The duration of the programme is one academic year and begins at the start of the general academic year.

## Programme Content

The programme introduces students to advanced concepts and skills in Plant Biotechnology needed for a career as a plant biotechnologist or a researcher. Emphasis is placed on three aspects in the educational process:

- The development of a satisfactory knowledge base;
- The development of a wide-ranging practical and theoretical capability; and
- The development of a professional scientific-methodological and ethical approach.

The programme includes theoretical work, seminars, practical tasks, independent research and independent consultation of the broader biological literature. As an honours student you are expected to attend departmental seminars and to act as an undergraduate demonstrator.

The theory modules consist of a series of contact sessions where information is exchanged by means of discussion groups, seminars, assignments and reading assignments. The module leaders will serve as facilitators, guiding the students rather than teaching them.

You can substitute two of the 8-credit theory modules with equivalent 8-credit modules from the BScHons in Genetics programme. All substitutions must be approved by the Department.

## Compulsory Modules

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|---|---|
| 10481: Genetics: Molecular Techniques | 715(16): Genetics: Molecular Techniques |
| 13594: Genomics | 716(8): Genomics |
| 13538: Scientific and Proposal Writing | 721(8): Scientific and Proposal Writing |
| 13537: Plant Genetics and Crop Improvement | 722(8): Plant Genetics and Crop Improvement |
| 12582: Research Module in Plant Biotechnology | 790(64): Research Module in Plant Biotechnology |

## plus

## Elective Modules

Choose two of the following modules.

| | |
|---|---|
| 17523: Plant Physiology | 712(8): Plant Physiology |
| 10475: Integrated Plant Metabolism | 713(8): Integrated Plant Metabolism |
| 11061: Biometrical Applications and Data Analysis in R | 721(8): Biometrical Applications and Data Analysis in R |

## Assessment and Examination

- The programme is assessed by means of flexible assessment.
- To complete the honours programme successfully, you must complete the compulsory molecular techniques module, all prescribed theory modules and a research project successfully.

# 2. General information on the postgraduate programmes

## 2.1 BScHons degree

2.1.1 The degree BScHons can be awarded to you if you –

2.1.1.1 have obtained a bachelor's degree approved by Senate for this purpose and upon written application, were admitted to the BScHons programme; and

2.1.1.2 have been registered as a student at the University for at least one year (after obtaining the bachelor's degree), have passed the prescribed written examination and successfully completed an oral examination.

2.1.2 The BScHons programme is taken in one of the majors of the BSc according to the provisions of the BSc programme. Students, who followed a BSc programme that does not lead to a BScHons programme, may be accepted to a BScHons programme provided that the BScHons programme can only begin after an examination in the required subject or subjects was successfully completed.

2.1.3 An average final mark of at least 60% in the major or prescribed modules in the final year of study is required for admission to a BScHons programme in the major in question. If you do not comply with this requirement, you may only be accepted to a BScHons programme if a recommendation has been made by the department concerned and with the special approval of the Faculty Committee of the Faculty of Science.

2.1.4 Specific provisions concerning BScHons programmes in specific subjects are given under the module content of the applicable subjects.

2.1.5 BScHons students are not allowed to take any additional third-year subject that includes practical work in the first year of the BScHons. However, if the BScHons programme concerned does not require practical work, you can, depending on the approval of the Faculty Board, be allowed to take an additional third-year subject.

## 2.2 MSc degree

2.2.1 The MSc degree can be awarded to you if you –

2.2.1.1 have obtained an honours degree approved by Senate for this purpose and upon written application, have been admitted to the proposed MSc programme; and

2.2.1.2 have followed an approved programme of research or advanced study of at least one year after obtaining the BScHons degree) at this University or at any other place approved by Senate; and

2.2.1.3 have submitted a satisfactory thesis or assignment, depending on the requirements of the department concerned, and have completed an oral examination.

2.2.2 Specific provisions concerning MSc programmes in specific subjects are given in the module content of the subjects concerned.

2.2.3 MSc students are not allowed to take any additional third-year subject that includes practical work in the first year of the MSc. However, if the MSc programme concerned does not require practical work, you can, depending on the approval of the Faculty Board, be allowed to take an additional third-year subject.

2.2.4 After three years of full-time MSc studies, you must reapply for continuation of studies.

**Please note:** For the regulations regarding attendance, examiners, thesis requirements, submission and binding of theses, etcetera, consult the Section "Postgraduate Qualifications" in Part 1 (General Rules) of the University's Yearbook.

## 2.3 PhD degree

2.3.1 The PhD degree can be awarded to you if you –

2.3.1.1 have obtained a Master's degree approved by Senate for this purpose, or have achieved a level of competence in a particular field of study that Senate considers suitable for the purpose, and upon written application been accepted by Senate to the PhD programme; and

2.3.1.2 have followed an approved programme of research and possible supplementary study, which may include a period of research at another place approved by Senate, for at least two years

after obtaining the above-mentioned Master's degree or after gaining the above-mentioned level of competence; and

2.3.1.3 have submitted a satisfactory dissertation; and

2.3.1.4 have completed an oral examination.

2.3.2 After four years of full-time PhD studies, you must reapply for continuation of studies.

**Please note:** For the regulations regarding attendance, examiners, dissertation requirements, submission and binding of dissertations, etcetera, consult the Section "Postgraduate Qualifications" in Part 1 (General Rules) of the University's Yearbook.

## 2.4 DSc degree

2.4.1 As a candidate for the DSc degree you must –

2.4.1.1 have conducted advanced, original research or creative work, to the satisfaction of the University, in the field of the natural sciences;

2.4.1.2 have submitted original work(s) of a high standard that has already been published, on a central theme, making a substantial contribution of high quality, in the view of Senate, to the enrichment of knowledge in the field of the natural sciences; and

2.4.1.3 have completed an oral examination to the satisfaction of the University.

2.4.2 If you already hold a PhD degree from the Faculty of Science or any other qualification that Senate considers an equivalent, you must –

2.4.2.1 have been registered at this University for the DSc degree for at least one academic year before the degree can be awarded to you and at least five years must have passed after obtaining the PhD degree, or another degree or qualification that is considered to be equally acceptable, before being awarded the DSc degree; and

2.4.2.2 have notified the Registrar in writing of the intention to be a candidate for the degree at least one year before presenting yourself for the degree and provided the title(s) and scope of the proposed work(s). Once Senate accepts the application, a supervisor and examiners will be appointed.

2.4.3 If you hold an MSc degree from the Faculty of Science or any other qualification that the Senate considers an equivalent, you must –

2.4.3.1 have been registered at this University for the DSc degree for at least three academic years before the degree can be awarded to you and at least seven years must have passed after obtaining the MSc degree, or another degree that is considered an equivalent, before being awarded the DSc degree; and

2.4.3.2 have notified the Registrar in writing of the intention to be a candidate for the degree at least three years before presenting yourself as a candidate and provided the title(s) and scope of the proposed work(s). Once Senate accepts the application, a supervisor and examiners will be appointed.

2.4.4 You must submit one copy of the work(s) that you want to present per examiner before 1 September (if you want to graduate in December), or before 1 December of the previous year (if you want to graduate in March) at the University office. The copies must be accompanied by a written statement that it is your original work and that the work has not been submitted to this or any other university for the purpose of obtaining any degree. If a substantial part of the submitted work was published under your name and that of another author, you must submit satisfactory testimony detailing which part of the work was done by you. Furthermore, you must mention who started the work, under whose supervision the work was done, who did the work, processed and submitted it to paper, and, if applicable, what part of the work was submitted to any university for the purposes of obtaining a degree.

## Disclaimer:

The content above comes from the 2024 Science Yearbook. Make sure to consult the full ***Science*** to see this extract in context and to check if there have been any changes. Take special note of additional information in the yearbook under section ***2. General provisions for postgraduate programmes***.