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# FACULTY OF NATURAL AND AGRICULTURAL SCIENCES

## School of Biological Sciences
- Biochemistry
- Botany
- Genetics
- Microbiology and Plant Pathology
- Physiology
- Zoology and Entomology

## School of Physical Sciences
- Chemistry
- Geology
- Geography, Geoinformatics and Meteorology
- Physics

## School of Agricultural and Food Sciences
- Agriculture Economics, Extension and Rural Development
- Animal and Wildlife Sciences
- Consumer Science
- Food Science
- Plant Production and Soil Science

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- Mathematics and Applied Mathematics
- Statistics

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**Baccalaureus degrees in Consumer Science (BConsSc.)**
**(Previously: Home Economics)**

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**Baccalaureus Scientae degrees (BSc):**

**FACULTY OF NATURAL AND AGRICULTURAL SCIENCES
ACADEMIC PERSONNEL AS ON 30 SEPTEMBER 2002**

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FRES FRSSA MSAAS PrSciNat

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    of Frankfurt) .................................................    Extraordinary Professor
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    Univ)...........................................................    Extraordinary Professor
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    Australia) PhD(UP) .......................................    Senior Lecturer
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    Pietermaritzburg)......................................................    Lecturer
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    MSc PhD (Pret) .................................................... Associate Professor
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    MSc PhD(Rutgers The State University) ..................... Extraordinary Professor
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    PhD(USA)....................................................................... Extraordinary Professor
Labuschagne, N., MSc(Agric) DSc(Agric)(Pret) PrSciNat    Senior Lecturer
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    HOD FLS...................................................................... Professor
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| | |
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| (J.P.H.Acocks Chair)................................................ | Extraordinary Professor |
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| Eloff, J.N., DSc(Potch) ...................................................... | Senior Lecturer |
| Van Greuning, J.V., DSc(Pret) THOD................................ | Senior Lecturer |

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    FGS LIASTG MAGU...................................................... Senior Lecturer
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    Et(Amsterdam) ........................................................... Professor (Honorary)
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PhD(Saskatchwan) ................................................ Professor
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Kok, F.J., MSc(UOVS) PhD(RAU) ......................................... Senior Lecturer
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Van der Berg, N.G., BSc(UPE) MSc(Unisa) DSc(Pret) ........ Senior Lecturer
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Meyer, W.E., MSc(Pret) ...................................................... Lecturer

**Department of Geography, Geoinformatics and Meteorology**
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PhD(Wits) STC FSAGS................................................ Professor (Head)
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DPhill(PU for CHO) ML(Pret) ........................................ Professor
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    TED(Pret)........................................................ Lecturer
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    Science Edu(Univ Leeds) ........................... Senior Lecturer
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    (Univ of Bonn)..............................................................    Senior Lecturer
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    PhD(Florida)..................................................................    Senior Lecturer
De Jager, P.C., BSc(PU vir CHO) BSc(Hons)(PU vir CHO)
    MSc(Pret) ....................................................................    Lecturer
Marais, D., BSc(Agric)(Hons) MSc(Agric)(Pret) ...............    Lecturer
Van der Waals, J.H., BSc(PU vir CHO) BSc(Hons)(PU vir CHO)
    MSc(Pret) ....................................................................    Lecturer

**Department of Animal and Wildlife Sciences**
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PrSciNat(Anim) ............................................................ for Wildlife Management
Centre

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PrSciNat(Anim) SAAPAS............................................. Associate Professor
Van Hoven, W., MSc DSc(PU vir CHO) PrSciNat(Anim) .... Associate Professor
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Webb, E.C., MSc(Agric)PhD(Pret) PrSciNat(Anim) SAAPAS Associate Professor
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Jansen van Ryssen, J.B., MSc(Agric) Natal PhD(Agric)Natal Professor Emeritus
Delport, G.J., MSc(Agric) PhD(UOVS).............................. Senior Lecturer
Kleyn, F.J., MSc(Agric)(Natal) PrSciNat(Anim) SAAPAS.. Senior Lecturer
Meyer, J.A., MSc(Agric)(Pret) PhD(Pret) SAAPAS........... Senior Lecturer
Schroeder, G.E., MSc(Agric)(Pret) PhD(Pret) PrSciNat
(Anim) SAAPAS............................................................ Senior Lecturer
Strydom, P.E., MSc(Agric)(Pret) PhD(UOVS) .................... Senior Lecturer
Van Marle-Köster, E., BSc(Agric)(Pret) BSc(Agric)(Hons)
MSc(Agric)(UOVS) PhD(Pret) Dipt. Development
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Vermeulen, G.T.J., BSc(Agric)(Hons)(Pret) MSc(Agric)
(UOVS)......................................................................... Senior Lecturer
Coertze, R., BSc(Agric)(Hons)(Pret)................................. Lecturer
Jansen van Rensburg, C., MSc(Agric)(Pret)..................... Lecturer
Basson, A., BSc(Agric)(Pret)............................................. Junior Lecturer
**Department of Consumer Science (Previously: Home Economics)**
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Botha, P., BSc(Home Econ)(Stell) MA(Minnesota) DSc(Pret)  Professor
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Du Rand, G.E., BHuish Ed(Stell) BHome Econ(Hons)(Stell)
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(Pret) .......................................................................... Lecturer
Retief, A., M(Home Econ)(Pret) ........................................... Lecturer
Strydom, M., BSc(Hons) Home Economics(PU for CHE) ..... Lecturer
Viljoen, A.T., Dipl Hosp Dietetics(UOVS) MDietetics(Pret) ... Lecturer
Viljoen, S., MHome Economics(UP) ..................................... Lecturer
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Economics(Hons)(UP) ................................................. Junior Lecturer
Kok, M., B Home Economics General(Hons)(US) ................ Junior Lecturer
Tselepis, T.J., B Home Economics (Clothing Management)
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**Department of Food Science**

Minnaar, A., BSc(Agric)(Hons) PhD(Pret) .......................... Professor (Head)

Taylor, J.R.N., BSc(Hons)(CNAA) Post-Grad.Cert.Ed.
    (Nottingham) PhD(Trent) DSc(Pret)............................ Professor

Bester, B.H., MSc(Agric)(Pret) DSc(Agric)
    (UOVS) LAkad(SA) PrSciNat..................................... Associate Professor

De Kock, H.L., BSc(Home Ec)(Hons) MSc(Agric)(Pret) .... Lecturer

Duodo, K.G., BSc(Ghana) MInstAgrar PhD(Pret) .............. Lecturer

Bapela, K.J., BAgore(Mgnt)(Univ) BIngstAgrar
    (Hons)(Pret) MSc(Ghent)........................................... Junior Lecturer

Van der Merwe, B., BSc(Food Science)(Stell) ................ Junior Lecturer


**Postgraduate School of Agriculture and Rural Development**

Swanepoel, F.J.C., Hons(BandA)(Stell) MSc(Agric) PhD(UOVS)
    PrSciNat...................................................................... Professor and Director

Van Rooyen, C.J., BSc(Agric)(Hons)(Stell) DSc(Agric)(Pret)
    SSE(IMD) ..................................................................... Professor

Peret, S., D.E.A., (Agronomy) PhD(Agronomy)(Montpellier,
    France)......................................................................... Associate Professor

Anandajayasekeram, P., BSc(Agric)(Hons)(University of
    Sri Lanka) PhD(University of Guelph)(Canada) .......... Extraordinary Professor

D'Haese, L.J.G.M.H, PhD(Rijksun University Gent) ........... Extraordinary Professor

Uphoff, N.T., BA(Pol Sc)(University of Minnesota)
    MPA(Princeton) PhD(Pol Sc, Public Admin and Dev
    Economics)(California, Berkeley)................................. Extraordinary Professor

Rwelamira, J.K., M.A.M.R.D.(Florida USA) ....................... Deputy Director

**Kellogg Integrated Rural Development Programme**
Swanepoel, F.J.C., Hons(BandA)(Stell) MSc(Agric) PhD(UOVS)
PrSciNat........................................................................ Professor and
Part-time Director
**South African Institute for Agricultural Extension**
Düvel, G.H., Dip Agric (Cedara) BSc(Agric) MInstAgrar
DInstAgrar(Pret) PrSciNat ........................................... Director
**School of Mathematical Sciences**
Ströh, A., MSc PhD(Pret)..................................... Professor (Chairperson)
**Department of Computer Science**
Eloff, J., PhD(RAU) .............................................. Professor (Head)
Bishop, J.M., BSc(Hons)(Rhodes) MSc(Natal)
PhD(Southampton) ...................................... Professor
Kourie, D.G., MSc(Pret) MSc(Unisa) PhD(Lancaster) ......... Professor
Barnard, E., BEng(Pret) MSc(Wits) PhD(Carnegie Mellon) .. Professor Extraordinary
Grant, T., PhD(Maastricht) ...................................... Professor Extraordinary
Van den Heever, R.J., MSc(Pret) MS(Stanford) MEng
PhD(Calif) ................................................... Professor Extraordinary
Engelbrecht, A.P., PhD(Stell) ................................ Associate Professor
Meyer, T.A.,  MSc(RAU) PhD(Unisa)................................... Associate Professor
Watson, B.W., H.J.B.Math(Waterloo) PhD(Eindhoven)......... Professor
Jolliffe, R.M., BSc(Hons)Strathclyde, PGCE (Univ of London) Lecturer
Marshall, L., BSc(Hons)(Pret) ............................................. Lecturer
Pieterse, V., BSc HED(Pret) BSc(Hons)(UNISA) MSc(Pret). Lecturer
Schoeman, L., BSc(Stell) BSc(Hons)(Unisa) MSc(RAU) ..... Lecturer
**Department of Statistics**
Crowther, N.A.S., BSc(Hons)(UOVS) MSc(UPE)
DSc(UOVS) ................................................ Professor (Head)
Stoker, D.J., MSc(PU for CHO) MSc(Stell)
Math et Phys Dr (Amsterdam) ................................... Professor (Honorary)
Stoker, D.J., MSc(PU vir CHO) MSc(Stell)
Steyn, H.S., MSc(UOVS) PhD(Edin) DSc(Pret) DSc(hc)
(Unisa) DSc(hc)(UOVS) PhD(hc)(RAU) DCom(hc)
(Pret)(UOVS) ............................................... Extraordinary Professor
Groeneveld, H.T., BSc(Agric)(Hons) MSc(Agric)(UOVS)
DSc(Pret)...................................................... Professor
Smit, C.F., MSc DSc(Pret) PrSciNat ..................................... Professor
Van Zyl, G.J.J., BCom(Hons)(Stell) Dip Stat(Oxon)
PhD(North Carolina)...................................... Professor
Boraine, H., MSc PhD(Pret)...................................... Senior Lecturer
Grimbeek, R.J., BSc(Hons) MSc(Pret)................................. Senior Lecturer
Kanfer, F.H.J., MSc PhD(PU vir CHO) ................................... Senior Lecturer
Millard, S.M., BCom(Hons) MCom(Pret)............................ Senior Lecturer
Swanepoel, A., BSc(Hons) MSc(UPE) ................................ Senior Lecturer
Bodenstein, L.E., BCom(Hons) MCom(Pret)......................... Lecturer

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|---|---|
| Clark, J., BSc(Hons) HED (Pret)............................................. | Lecturer |
| Crafford, G., BSc(Hons) MSc(Pret)..................................... | Lecturer |
| Ehlers, R., BSc(Hons)(Pret).............................................. | Lecturer |
| Louw, E.M., MSc PhD(Pret) ................................................ | Lecturer |
| Pauw, J., BSc(Hons)(Pret) MSc(Unisa) ............................... | Lecturer |
| Strydom, H.F., BSc(Hons)(Pret) MSc(Unisa) HED(Pret)....... | Lecturer |
| Van Staden, P.J., BCom(Hons) MCom(Pret)......................... | Lecturer |
| Warner, F.H., BSc(Hons) MSc(Pret)..................................... | Lecturer |
| Coetsee, J., BCom(Hons)(Pret) ........................................... | Junior Lecturer |

**Department Insurance and Actuarial Sciences**

| | |
|---|---|
| Du Plessis, H.L.M., BSc(Wits) FIA ........................................ | Associate Professor |

**Department of Mathematics and Applied Mathematics**

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|---|---|
| Ströh, A., MSc PhD(Pret) ....................................................... | Professor (Head) |
| Diestel, J., BS(Dayton) PhD(Cath Univ of America) ............. | Professor (Honorary) |
| Rosinger, E.E., MSc Dr Sc(Bucharest) ................................ | Professor Emeritus |
| De Jongh, D.C.J., BSc(Hons)(Wits) MSc(Unisa) PhD(Wits) | Extraordinary professor |
| Engelbrecht, J.C., MSc(Pret) DSc(PU vir CHO) .................... | Professor |
| Lubuma, J.M-S., MSc PhD (Univ of Louvain, Belgium) ......... | Professor |
| Penning, F.D., MSc DSc(Pret) .............................................. | Professor |
| Pretorius, L.M., MSc DSc(Pret) ............................................ | Professor |
| Schoeman, M.J., MSc(Pret) Dr Sc T Wet(Delft) L.Akad.(SA) | Professor |
| Swart, J., BSc(Hons) MSc(PU vir CHO) DrPhil(Zürich)........ | Professor |
| Van Niekerk, F.D., MSc DSc(Pret) ....................................... | Retired : Part-time Professor |
| Swart, B., MSc DSc(Pret) ..................................................... | Associate Professor |
| Anguelov, R., MSc(Sofia) PhD(Unisa) ................................. | Senior Lecturer |
| Greybe, W.G., MSc DSc(Pret) .............................................. | Senior Lecturer |
| Griffiths, A., BSc(Hons) MSc(Pret) THED ............................ | Senior Lecturer |
| Harding, A.F., MSc DSc(Pret) HNED..................................... | Senior Lecturer |
| Janse van Rensburg, N.F., BSc(Pret) BSc(Hons)(Unisa) MSc DSc(Pret) HED....................................................... | Senior Lecturer |
| Möller, M.P., BSc(Hons)(Comp. Science) BSc(Hons)(Maths) MSc(Pret) .................................................................... | Senior Lecturer |
| Theron, F., MSc DSc(Pret) HED ........................................... | Senior Lecturer |
| Duvenhage, R. de V., MSc PhD(Pret).................................... | Lecturer |
| Jordaan, K.H., BSc(Pret) BSc(Hons)(Wits) MSc(Pret)........ | Lecturer |
| Labuschagne, A., BSc(Hons) MSc(PU vir CHO) DTE .......... | Lecturer |
| Maepa, S.M., BSc(Hons)(Univ of North) MSc(Univ of Lancaster) PhD(Pret) .................................................................... | Lecturer |
| Mostert, L., BSc(Hons) MSc(PU vir CHO) ........................... | Lecturer |
| Van Zyl, A.J., BSc(Hons) MSc(Pret) .................................... | Lecturer |
| Verwey, A., BSc(Hons) MSc(Pret) ....................................... | Lecturer |

**Student Administration**

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|---|---|
| Beresford, M.E., Mrs.......................................................... | Head: Student Administration |
| Kotze, S ............................................................................ | Faculty Manager |

**GENERAL INFORMATION**

**Admission**

Any person who wishes to register at the University for the first time, or after an interruption of studies, should apply or reapply for admission. Application for admission to all undergraduate modules closes on 30 September.

**Selection**

A selection procedure takes place prior to admission to the following degree programmes in the Faculty of Natural and Agricultural Sciences:

(a) **All undergraduate programmes**

**Note:** BSc: Veterinary Biology: Candidates must apply and register for a BSc: Biological Sciences, BSc: Animal Sciences or a degree consisting of the same modules prescribed for the BSc: Veterinary Biology. Applications close on 30 September.

A first round selection process for the degree BSc: Veterinary Biology will take place at the end of the second year of study provided a candidate had passed the prescribed modules. Students not selected at the end of the second year will be able to continue in their third year with any one of a number of different degree options including a three-year BSc degree with options in either Animal Sciences, Botany, Biotechnology, Entomology, Genetics, Microbiology, Zoology, or alternatively a four-year BSc(Agric) in Animal Science. However, it may be necessary to register for additional outstanding prescribed modules.

A final selection of candidates who will be admitted to the BVSc programme will be made at the end of the third year in quarter of rules G.1.3, G.1.4 and G.62, based on academic merit, an interview and according to available capacity. Students not selected at the end of the third year of study or who do not wish to continue with the BVSc degree, will be able to apply for admission to continue with a honours degree in Anatomy, Physiology or an honours degree in one of the Biological or Agricultural Sciences after completion of a number of specified additional third year modules in that discipline.

(b) **Postgraduate programmes:**

BSc(Hons) with specialization in Chemistry. Applications close on 30 November.

BSc(Hons) Mathematical Statistics: Admissions test compulsory for admission.

BSc(Hons) Wildlife Management: Applications close on 8 September.

MSc(Agric) Animal Science (all specializations): Applications close on 30 October.

MInstAgrar Animal Production Management: Applications close on 30 October.

**Statement of symbols**

When registering at this University for the first time, a candidate has to submit a record of symbols obtained for each subject in the Grade 12 examination.

**Medium of instruction**
In conducting its business, the University uses two official languages, namely Afrikaans and English.  In formal education, the medium of instruction is either Afrikaans or English, or both of these languages, provided that there is a demand and that it is academically and economically justifiable.   However, it remains the student's responsibility to ascertain on an annual basis in which language a module and any further level of that module is presented.   In respect of administrative and other services, a student has the right to choose whether the University should communicate with him or her in Afrikaans or English.

**Bursaries and loans**
Particulars of bursaries and loans are available on request.

**Accommodation**
Applications for accommodation in university residences for a particular year should be submitted as from April 1 of the preceding year. Applications will be considered as long as vacancies exist, and prospective students are advised to apply well in advance.
Please note that admission to the University does not automatically mean that lodging will also be available.

**Welcoming day and academic information week**
Details of the welcoming day to which all parents are cordially invited, and the subsequent academic information week during which all new first-year students **must** be present, are obtainable from the Dean of Students, University of Pretoria 0002.

**Prescribed books**
Lists of prescribed books are not available. The appropriate lecturers will supply information regarding prescribed books to students at the commencement of lectures.

**Amendment of regulations and fees**
The University retains the right to amend the regulations and to change module fees without prior notification.

**NB:** The University of Pretoria started phasing in a new system of education and learning during 2000, which meets the requirements set out in the SAQA guidelines (South African Qualifications Authority) and in the NQF (National Qualification Framework). This entails the implementation of training programmes that will be outcomes-based and market-orientated. This system was be implemented in the Faculty during 2001. Students who registered for a degree or diploma in this Faculty before 2000, will be enabled to complete the studies for the qualification.
Should a student who registered before 2001, wish to change over to the a new programme, permission may be obtained in consultation with the programme manager for the new programme. For certain programmes it will be essential that the student change over to the new programme on the recommendation of the programme

manager. However, the student will have to meet all the requirements for the new qualification.

As a result of the phasing-in of this new system, information in this publication might not reflect the very latest developments in the Faculty. Problems may be taken up with the Faculty Administration.

**Presentation of a module or a programme**

The Faculty reserves the right not to offer a particular module or programme if there is insufficient resources to do so, or if an insufficient number of qualified students present themselves.

**Foundation Year Programme in Mathematics and the Basic Sciences (Code 02181001) (UPFY)**

The Foundation Year Programme in Mathematics and the Basic Sciences (UPFY), is a one-year programme offered to designated students who wish to register for a science or science-based study at the University of Pretoria but who did not meet the entrance requirements for these studies.

*(a) Admission*

Admission of students is based on an admission test that will be administered during January 2003. In the selection procedure the quality of prior education of the individual candidates is also considered. Student eligible to write the admission test:

(i)   must belong to the group of designated students

(ii)  must have obtained at least an F(SG) or G(HG) in the Grade 12 Mathematics examination

(iii) must have obtained at least an F(SG) or G(HG) in the Grade 12 Physical Science examination and/or must have obtained at least an F(SG) or G(HG)the Grade 12 Biology examination

*(b) Modules*

FBI 001   Foundation module in Biology 001
FCM 001   Foundation module in Chemistry 001
FES 001   Foundation module in English and Study Skills 001
FPH 001   Foundation module in Physics 001
FPM 001   Foundation module in Mathematics 001
CIL 171   Computer and information literacy 171
CIL 172   Computer and information literacy 172
CIL 173   Computer and information literacy 173
CIL 174   Computer and information literacy 174

All modules are compulsory.

*(c) Rules and regulations*

Consult the UPFY Handbook for the rules and regulation pertaining the programme. For instances not covered by the UPFY regulations the Faculty or University regulations shall apply.

*(d) UPFY Pass*

An UPFY Pass is issued if:

1.   The student obtains a final mark of 60% in at least four of the following modules: FBI 001, FCM 001, FPH 001, FPM 001, and FES 001 and a final mark of 50% in the remaining module.

2.   The student passes all examinations of the Computer literacy module.

*(e) Admission to undergraduate study*

The UPFY Pass gives access to all undergraduate programmes offered by the Faculty.

**Definition of terms**

*Familiarise yourself with the following terms. They are used generally in all faculties.*

**academic year**:  the duration of the academic year which is determined by the University Council

**core module:** a compulsory course for a specific study programme

**course**:  a selected division of a subject deemed to be a unit and to which a course code is allocated

**course code**:  consists of an equal number of capitals and digits, which indicate the name of the course, the year of study, the period of study and the level of the course

**credits**: a number of credits are allocated to each course. These represent the quantity of work and the extent of the course

**curriculum**:  a series of courses grouped together from different subjects over a specified period of time and in a certain sequence according to the regulations

**elective module:** a course that forms part of a study programme and which may be chosen by the students on condition that sufficient course credits on a specific level is obtained, as is required for the qualification for which the student is registered

**examination mark**:  the mark a student obtains for an examination in a course, including practical and clinical examinations where applicable. If necessary, the examination mark is finalised after ancillary examinations have been completed

**extended study programme**: a study programme for a degree or diploma which is completed over a longer period than the minimum duration of the particular degree or diploma

**final mark**: the mark calculated on the basis of the semester/year mark and the examination mark a student obtained in a particular course according to a formula which is determined from time to time in the regulations for each course with the proviso that should no semester/year mark be required in a course, the examination mark serves as the final mark

**fundamental module:** a course that is regarded as the academic basis of the learning activities in a specific programme

**GS:** a combined mark (semester/year mark plus examination mark) of at least 40%

**level of a course** or **level**:  the academic level of a course which is indicated in the course code

**learning hours** : This refers to the notional number of hours students should spend to master the learning content of a particular module or programme.  The total number of learning hours for a module consists of the time needed for lectures, practicals, self-study and any other activity required by the training programme.  Learning hours for modules are calculated on the basis of **40 working hours per week x 28 weeks = 1120 + 80 additional hours for evaluation = 1200**.  For undergraduate modules, the total number of learning hours per module are calculated using the formula **number of credits** (per module) **x 10**.

**module:** a subject course that may strech over 7 weeks, a semester (14 weeks) or a year (28 or 34 weeks).

**registration**:  the process a candidate is required to complete to be admitted as a student of the University or for admission to a course

**regulation for admission**: a regulation drawn up by the Dean of a faculty regarding the admission of students to the faculty. It includes a provision regarding the selection process

**semester course**:  a course that extends over one semester

**semester/year mark**:  the mark a student obtains during the course of a semester or a year for tests, class-work, practical work or any other work in a particular course as approved by regulation

**subject**: a demarcated field of study of which one course or more may be chosen for a degree

**syllabus**:  the division of the study material for a specific course, according to the regulations

**weighted average**: the weighted average is composed of the marks for the various courses, weighted with the credits of each course as a fraction of the total number of credits for the semester or year

**year course**: a course that extends over one year (two semesters)

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## REGULATIONS AND CURRICULA

*The rules for degrees, diplomas and certificates here published are subject to change and may be amended prior to the commencement at the academic year in 2002.*

1. **Admission to undergraduate study**

1.1 **General**
2      To register for a first bachelor's degree at the University, a candidate must, in addition to the required Grade 12 certificate with university exemption, comply with the specific admission requirements for particular modules and fields of study as prescribed in the admission regulations and the faculty regulations.
3      The following persons may also be considered for admission:
   (i)      A candidate who is in possession of a certificate which is deemed by the University to be equivalent to the required Grade 12 certificate with university exemption.
   (ii)     A candidate who has an UPFY Pass.
   (iii)    A candidate who is a graduate from another tertiary institution or has been granted the status of a graduate of such an institution.
   (iv)    A candidate who passes an entrance examination, as is prescribed by the University from time to time.

   **Note**:    A conditional exemption certificate does not grant admission to bachelor's
          study. However, in certain circumstances some of the faculties do accept

a
conditional exemption on the basis of mature age. Candidates are advised to
contact the specific faculty administration in this regard.

4      The Senate may limit the number of students allowed to register for a module, in which case the Dean concerned may, at his own discretion, select from the students who qualify for admission those who may be admitted.

2      Subject to faculty regulations and the stipulations of General Regulations G.1.3 and G.62, a candidate will only be admitted to postgraduate bachelor's degree tudies, if he or she is already in possession of a recognised bachelor's degree.

## 1.2 **Requirements for specific courses**

A candidate who has:

  (a)   i)       A candidate who has passed the Grade 12 examination with an M-score of at least 18 and at least 60% (C) in Mathematics in higher grade, may register for COS 130, provided that he/she does not qualify for COS 110.

        ii)      A candidate who has registered for any programme that requires an introductory module in computer programming, may register for COS 160, provided that he/she does not qualify for admission to COS 110 or COS 130.

        iii)     (1) A candidate who has passed the Grade 12 examination in Computer Studies with at least 50% (D) at higher grade, as well as in Mathematics with at least 50% (D) at higher grade, obtains admission to the module COS 110 in Computer Science; **or**

                 (2) A candidate who has passed COS 130, obtains admission to the module COS 110 in Computer Science; **or**

                 (3) A candidate who has passed COS 160 as well as Mathematics with at least 50% (D) at higher grade obtains admission to the module COS 110 in Computer Science; **or**

                 (4) A candidate who has passed COS 160 and has been admitted to the module WTW 101 obtains admission to the module COS 110 in Computer Science; **or**

                 (5) A candidate who has passed Mathematics with at least 50% (D) at higher grade as well as the exemption test for computer programming, obtains admission to the module COS 110 in Computer Science.

        iv)      A student may not obtain credits for both COS 130 and COS 160.

  (b) passed the Grade 12 examination in Mathematics with at least 40% at higher grade or at least 50% at standard grade, will be admitted to the modules GLY 151 and 152 in Geology;

  (c) passed the Grade 12 examination in Mathematics with at least 40% (E) at higher grade or 50% (D) at standard grade, or passed Geography with at least 50% at higher grade, will be admitted to GGY 153, 154, 132, 162 and 163 in Geography;

  (d) passed the Grade 12 examination in Mathematics and Physical Science at higher grade with at least 50%, will be admitted to the module CMY 151, CMY 117 and CMY 127 in Chemistry and PHY 131 and PHY 171 in Physics;

  (e) passed the Grade 12 examination in Mathematics with at least 50% at higher grade, will be admitted to WTW 114, WTW 134 and WTW 158 in Mathematics, and to WST 110 in Mathematical Statistics (For the programme in Financial Mathematics, 60% in Mathematics higher grade is recommended);

  (f) passed the Grade 12 examination in Mathematics as well as in Physical Science with at least 50% at higher grade, will be admitted to Molecular and Cell Biology

and a module in the subjects Zoology and Entomology, Genetics, Microbiology or Botany;

(g) passed the Grade 12 examination in Mathematics with at least 40% at higher grade or at least 50% at standard grade (or at least 50% in Statistics 113 and 123), will be admitted to (i) a module in the subjects Banking, Informatics (excluding INF 153,154, 163, 164 and 253, 263) or Statistics and (ii) modules in Economics, Marketing Management Financial Management and Financial Accounting on 200 level;

(h) registered, may write an exemption test for module FRK 151 on the work covered in Grade 12 (matric) for the subject Accountancy. Should this test be passed, the student will be exempted from module FRK 151 and will be allowed to continue with module FRK 181 immediately. This module entails computer applications for Accountancy and is presented during the full first semester (14 weeks). Should the student fail the exemption test, he or she can continue with FRK 151, which entails introductory computer-supported accountancy and a few lectures. The student who failed to pass the exemption test for FRK 151, will continue with FRK 181 in the second semester after having passed FRK 151 in the first semester. Credit will be given for any one of FRK 151, 152, 121 and 211, provided that FRK 181 has been passed.

(i) passed the Grade 12 examination in Mathematics with at least 50% (D) at higher grade or 60% (C) at standard grade, or passed Mathematics at higher grade with at least 40% or at standard grade with at least 50% (D) as well as Computer Studies with at least 60% (C) at higher grade or 70% at standard grade, or who obtained an average of at least 60% in Statistics 110* and 120*, or who obtained an average of at least 60% in {(Statistic 113*, 123*) and Statistics 120*) will be admitted to Informatics 153, 154, 163, 164, 253 and 263 (*at least 50% must be obtained in each module).

**Please note**: (i) …the Grade 12 examination… refers to the final matriculation examination.

(ii) A student who takes a module presented by another faculty must take note of the admission requirements of that module, subminima required in examination papers, supplementary examinations, etc.

## 2. Registration for a particular year of study

At the beginning of an academic year, a student registers for all the modules he or she intends taking in that particular year (whether these be first-semester, second-semester or year modules). Changes to the chosen module of study may be made at the beginning of the second semester with the Dean's approval. A student may also only register for modules that will fit in on the lecture, test and examination timetables. Should a student be prepared to attend one module after hours to avoid clashes on the timetables, the approval of the Dean is not required. (This will only be possible if the subject in question is offered full-time and extramurally). A student is allowed to register for the next year of study only if at

least the equivalent of four semester modules has been passed in a particular year of study – also applicable to the Extended Programmes.

**2.1 Extended Programme (Mathematical Sciences) (02182003)**
**Extended Programme (Biological and Natural Sciences) (03182003)**

(a) These programmes are followed by students who, as a result of exceptional circumstances, will benefit from an extended programme.

(b) Students who wish to follow the Extended Programme will be subjected to an admissions test and will be considered for admission by a Selection Committee.

(c) Applications for admission to the Extended Programme should be submitted before 30 September each year. Details are obtainable from the Faculty Administration.

(d) The rules and regulations applicable to the normal study programmes apply *mutatis mutandis* to the Extended Programmes, with exceptions as indicated in the regulations pertaining to the Extended Programmes.

(e) Students who are admitted to the Extended Programme register for one of the Extended Programmes.

2.2 **Information Technology (02133211, 02133221 and 02133231)**
Students must pass at least *three* Computer Science modules at second-year level, before admission to the Computer Science modules at third-year level will be permitted, unless special permission has been granted by the head of department.

3. **Course credits for unregistered students**
There are students who attend lectures, write tests and examinations and in this manner earn "marks", but have either not registered for modules or even as students at all. These marks will not be communicated to any student before he/she has provided proof of registration. A student cannot obtain any credits in a specific academic year for a module "passed" in this manner during a previous academic year and for which he/she was not registered. This arrangement applies even where the student is prepared to pay the tuition fees.

4. **Examination and pass requirements**
Students who are registered for a module in this faculty are entitled to write the examination in that module. A final mark of at least 50% is required to pass the module.

4.1 **Subminima in examinations**
A subminimum of 40% is required in the examination in each module. The year or semester mark of a module is obtained through continuous assessment of a student's performance during the module. It is a prerequisite that a student must satisfactorily complete the practical component of the module (if applicable). The method by which the year/semester mark will be obtained, is published in the

study guide of the module.

4.2 **Examinations**

The examinations for first-semester modules and the first- and second-quarter modules take place in May/June, while all other examinations (second-semester modules, third- and fourth-quarter modules and year modules) take place in October/November.

The final mark for the module/module is a combination of the year or semester mark and the examination mark, with the proviso that a module/module can only be passed if a subminimum of 40% is obtained in the examination and the practical component (if applicable) of the module/module has been satisfactorily completed. A final mark of at least 50% is required to pass a module/module. The year or semester mark must fall within a range of 40%-60% and the examination mark must fall within a range of 40%-60% of the final mark. Deviations from this rule can be approved by the Dean. The formula that is used to dequarterine the final mark will be specified in the study guide of the module.

4.3 **Ancillary examinations**

After completion of an examination and before the examination results are published, the examiners may summon a student for an ancillary examination on particular aspects of the work of that module.

4.4 **Re-marking of examination papers (also consult Reg G.14)**

After an examination, departments give feedback to students about the framework that was used by the examiners during the examination. The way in which feedback is given, is dequarterined by the departmental heads. Students may apply for re-marking of an examination paper after perusal and within 14 calendar days after commencement of lectures in the next semester. The prescribed fee has to be paid. The paper will then be re-marked by an examiner appointed by the head of the department.

4.5 **Supplementary examinations**

(a) Supplementary examinations in first-semester modules take place after the May/June examinations, while those in second-semester and year modules take place after the October/November examinations.

(b) To pass a supplementary examination, a student must obtain a minimum of 50%.

(c) The highest final percentage a student can obtain in a supplementary examination is 50%.

4.6 **Computer and Information Literacy** (CIL 171, CIL 172, CIL 173, CIL 174)

(a) It is a requirement for all new first-year students to register for modules in Computer and Information Literacy. Students may write an exemption test.

(b) Students who passed the four modules WST 151, WST 152, WST 161 and WST 162 are exempted from CIL 172 and CIL 173.

4.7 **Language Skills** (EOT 151, EOT 152, EOT 153, EOT 154)
All new first-year students are required to write a language skills test. Based on the results of the test, a student will be enrolled in language development modules that have to be passed before the degree will be awarded. All students who pass the Language Skills test have to enrol for modules of equal value to make up the credits from the following: FIL152, FIL 153, FIL 155 or other language modules: AFT 151, AFT 152, AFR159, AFR160, ENG 151, ENG 152, ENG 153, ENG 154, EOT161, EOT162, EOT164, NDE 151, NDE 152, SEP 151, SEP 152, STW 151, STW 152 or ZUL 151, ZUL 152.

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**DEGREES AND DIPLOMAS CONFERRED AND AWARDED IN THE FACULTY**

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The following degrees and diplomas are presented in the Faculty (minimum period of study is given in brackets):

(a) **Bachelor's degrees:**
    (i)    Baccalaureus Scientiae – BSc (3 years)
    (ii)   Baccalaureus Scientiae Agriculturae  -– BSc(Agric) (4 years)
    (iii)  Baccalaureus Institutionis Agrariae  – BInstAgrar (4 years)
    (iv)   Baccalaureus Secundae Educationis (Scientiae)   – BSecEd(Sci)
                                                              (4 years)
    (vii)  Baccalaureus in Consumer Science – BConsSc (4 years)

(b) **Honours degrees: (1 year)**
    (i)    Baccalaureus Scientiae Honores   – BSc(Hons)
    (ii)   Baccalaureus Institutionis Agrariae Honores  – BInstAgrar(Hons)

(c) **Master's degrees: (1 year)**
    (i)    Magister Scientiae – MSc
    (ii)   Magister Scientiae Agriculturae  – MSc(Agric)
    (iii)  Magister Institutionis Agrariae  – MInstAgrar
    (iv)   Magister in Consumer Science – MConsSc

(d) **Doctor's degrees:**
    (i)    Philosophiae Doctor  – PhD (1 year)
    (ii)   Doctor Scientiae  – DSc

(e) **Diplomas:**
    (i)    Diploma in Education with specialisation in Science for the Secondary Phase - (3 years)
    (ii)   Postgraduate Diploma in Earth Science Management and Practice - (2 years)
    (iii)  Postgraduate Diploma in Geographical Information Systems - (1 year)
    (iv)   Postgraduate Diploma in Environment and Society - (1 year)
    (v)    Advanced Diploma in Extension and Rural Development - (1 year)

(vi)    Postgraduate Diploma in Clothing and Textiles - (1 year)

(f)  **Certificates:**
  (i)      Advanced Certificate in Education (Mathematics and Computer literacy) (1 year)
  (ii)     Advanced Certificate in Education (Computers and Telecommunication in Mathematics, Science and Technology Education) - (2 years)
  (iii)    Advanced Certificate in Education (Mathematics and Natural Sciences) (2 years)
  (iv)    Advanced Certificate in Education (Technology) - (2 years)

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| **BACCALAUREUS DEGREES** |
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| **GENERAL INFORMATION FOR DEGREES IN THE FACULTY** |
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General Regulations G.1 to G.15 are applicable to a bachelor's degree.

**Sc.1 Admission requirements**

(i)  **Baccalaureus Scientiae (BSc)**
- *All study programmes excluding programmes in Information Technology and Mathematical Sciences:*
  A Grade 12 certificate with university exemption, with at least 50% (D symbol) in English or Afrikaans, Mathematics at higher grade and an adjusted M-score of at least 20.
- *Study programmes in Mathematical Sciences and Information Technology:*
  A Grade 12 certificate with university exemption, with at least 50% (D symbol) in English or Afrikaans, Mathematics at higher grade and an adjusted M-score of 18.
- An adjusted M-score is calculated as follows :

| **Symbols** | **Higher grade** | **Standard grade** |
|---|---|---|
| A symbol (80% and higher) | 5 | 3 |
| B symbol (70% to 79%) | 4 | 2 |
| C symbol (60% to 69%) | 3 | 1 |
| D symbol (50% to 59%) | 2 | 0 |
| E symbol (40% to 49%) | 1 | 0 |

*All study programmes excluding programmes in Information Technology and Mathematical Sciences:*

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The value for Mathematics is doubled as well as the highest value for either Physical Science or Biology.

| Symbols | Higher grade | Standard grade |
|---|---|---|
| A symbol (80% and higher) | 5 | 3 |
| B symbol (70% to 79%) | 4 | 2 |
| C symbol (60% to 69%) | 3 | 1 |
| D symbol (50% to 59%) | 2 | 0 |
| E symbol (40% to 49%) | 1 | 0 |

*Study programmes in Mathematical Sciences and Information Technology:*
In the case of seven or more subjects, the six best symbols are taken into account with due allowance for the requirements of specific courses.

(ii) **Extended Programme: Mathematics and Computer Science (Code 02182003)**
- A Grade 12 certificate with university exemption, with at least 40% (E symbol) in English or Afrikaans and Mathematics at higher grade or 50% (D symbol) at standard grade. (An admissions test is compulsory for final admission.)

(iii) **Extended Programme: Biological and Natural Sciences (Code 03182003)**

- A Grade 12 certificate with university exemption, with at least 40% (E symbol) in English or Afrikaans, Mathematics and Physical Science at higher grade or 50% (D symbol) at standard grade. (An admissions test is compulsory for final admission.)

(iv) **Baccalaureus Scientia Agriculturae (BSc(Agric))**

- Selection for the BSc(Agric) degree courses is based on an adjusted M score, which is calculated as follows :

| Symbols | Higher grade | Standard grade |
|---|---|---|
| A symbol (80% and higher) | 5 | 3 |
| B symbol (70% to 79%) | 4 | 2 |
| C symbol (60% to 69%) | 3 | 1 |
| D symbol (50% to 59%) | 2 | 0 |
| E symbol (40% to 49%) | 1 | 0 |

The value for Mathematics is doubled as well as the highest value for either Physical Science or Biology.

In the case of seven or more subjects, the six best symbols are taken into account with due allowance for the requirements of specific courses.

- Candidates who have obtained at least a D symbol at higher grade in English or Afrikaans, Mathematics and Physical Science, with an adjusted minimum M-score of 20, qualify for admission to the BSc(Agric) four-year programme.
- Candidates who have obtained at least an E symbol at higher grade or a D symbol at standard grade in English or Afrikaans, Mathematics and Physical Science, with an adjusted M-score of at least 12, can be considered for admission to the extended programme. (An admissions test is compulsory).

(v) **Baccalaureus Institutionis Agrariae (BInstAgrar)**
Selection for the BInstAgrar degree course is based on an adjusted M score which is calculated as follows :

| Symbols | Higher grade | Standard grade |
|---|---|---|
| A symbol (80% and higher) | 5 | 3 |
| B symbol (70% to 79%) | 4 | 2 |
| C symbol (60% to 69%) | 3 | 1 |
| D symbol (50% to 59%) | 2 | 0 |
| E symbol (40% to 49%) | 1 | 0 |

The value for Mathematics is doubled as well as the highest value for either Physical Science or Biology or Agricultural Sciences.

In the case of seven or more subjects, the six best symbols are taken into account, with due allowance for the requirements of specific courses.

- Candidates who have obtained at least an E symbol at higher grade or a D symbol at standard grade in two of the following subjects Mathematics, Physical Science and Biology, and who have obtained at least an E symbol at higher grade or a D symbol at standard grade

in English, with an adjusted M score of 12, qualify for admission to the BInstAgrar degree.

- Candidates who do not obtain the required M score, may be referred by the Dean for an admissions test.  The Dean will then decide whether a student can be admitted.

(vi) **Baccalaureus in Consumer Scienc (BConsSc)**

(a) The curriculum of the B Consumer Science degree programme makes provision for a choice between the following possibilities:

**Clothing Management:** Retail Management and Small Business Management

**Food Management** Retail Management and Small Business Management

**Interior Merchandise Management:** Retail Management and Small Business Management

**Development:**  Is only presented on a part-time basis and in English.

*Admission requirements:*

- **Clothing Management, Food Management and Interior Merchandise:**

Matriculation exemption with at least 40% in Mathematics on Higher Grade and 50% at Standard Grade.  (Physical Science is strongly recommended).

- **Development:**

Please note: This option has temporarily been put on hold. No new students will be admitted until further notice.

(a) The curriculum of the B Consumer Science (Ed) degree programme offers the following possibilities:

Home Economics or Hotel-keeping and Catering.

*Admission requirements:*

**Home Economics:**  Matriculation exemption with at least 40% on Higher Grade and 50% at Standard Grade in Mathematics.

**Hotel-keeping and Catering:**

Matriculation exemption with at least 40% on Higher Grade and 50% at Standard Grade in Mathematics.

(vii) **Baccalaureus Secundae Educationis (Scientiae)(BSecEd(Sci))**

See Sc.7.6

Admission requirements of specific modules is set out in Par. 1.2

**Sc.2  Duration**

- **BSc**

The minimum duration of study is three years.

- **BSc(Agric), BInstAgrar, BConsSc, BSecEd(Sci)**

The minimum duration of study is four years full-time study

**Sc.3  Study programmes**

The curricula are compiled from the study programmes in Sc. 7 or an alternative study programme as approved by the Dean.

**Sc.4  Compilation of the curriculum**

- **BSc**

A student must obtain at least 440 course credits to comply with the requirements for the BSc degree programme. At least 144 credits must be obtained at 300/400 level. A maximum of 176 credits will be recognised at 100 level. A student may, in consultation with the Dean, follow modules not indicated in BSc three-year study programmes to the equivalent of a maximum of 36 course credits. The credits allotted per semester to each elective course should be regarded as a guideline only and not as an instruction. It is, however, important that the total number of prescribed elective course credits are completed during the course of the study programme. The Dean may, on the recommendation of the head of department, approve deviations in this regard.

A student may not register for more than 110 course credits per semester, unless it is with the permission of the Dean.

Students who are already in possession of a bachelor's degree, will not receive credit for more than half the credits passed previously passed for that degree.

Promotion requirements:

A student will be promoted to the following year of study if less than 50 credits need to be carried over, unless the Dean on the recommendation of the head of department decides otherwise. A student who does not comply with the requirements of promotion to the following year of study, retains the credit for the courses already passed and may be admitted by the Dean, on recommendation of the head of department, to courses of the following year of study to a maximum of 50 credits, provided that it will fit in with the timetable.

- **BSc Extended programme**

  **Extended modules**: (For students who register for the BSc: Extended Programme.)

  The following modules are available:

  | | |
  |---|---|
  | CMY 101 | First course in Chemistry |
  | | (equivalent course: CMY 117) |
  | CMY 102 | General Chemistry |
  | | (equivalent course: CMY 127) |
  | PHY 101 | General Physics |
  | | (equivalent course: |
  | | PHY 131 and portion of PHY 171) |
  | PHY 102 | Mechanics and Electricity |
  | | (equivalent course: portion of PHY 171) (**NB**: Both PHY 101 and 102 must be passed for exemption from PHY 171 (year module) |
  | WTW 101 | Mathematics 101 |

(equivalent course: WTW 114)

WTW 102    Mathematics 102

(equivalent courses: WTW 126, 128)

A student is admitted to these courses only once.

**Compulsory introductory modules for the Extended Programme**

CIL 171, 172,

CIL 173, 174  Computer and Information Literacy

COS 160       Computer Science

> ***NB****: COS 160 may not be taken if a student obtained a D-symbol at higher grade in Computer Studies in grade 12. If a student passed at standard grade, COS 160 may be taken.*

SCI 152       Computer and Problem-solving Skills 152

SCI 153       Academic Proficiency 153

SCI 162       Computer and Problem-solving Skills162

SCI 163       Basic Research Skills 163

*Combinations not allowed: Students may not register for SCI 152 at the same time as CIL 171, CIL 172 . Students may not register for SCI162 at the same time as CIL173, CIL174.*

Students who complete SCI 152 successfully, are exempted from CIL 171 and CIL 172 and may register for COS 160.

Students who complete SCI162 successfully are exempted from CIL 173 and CIL174.

EOT 151       Language Skills 151

EOT 152       Language Skills 152

EOT 153       Language Skills 153

EOT 154       Language Skills 154

- **BSc (Agric)**

The minimum course credits needed to comply with degree requirements is set out at the end of each study programme.

Students must register for optional course credits in consultation with the head of department who must ensure that the courses do not clash on the set time table.

The Dean may, in exceptional cases and on recommendation of the head of department, approve deviations from the prescribed curriculum.

Promotion requirements:

A student will be promoted to the following year of study if less than 50 credits need to be carried over, unless the Dean on the recommendation of the head of department decides otherwise.  A student who does not comply with the requirements of promotion to the following year of study, retains the credit for the modules already passed and may be admitted by the Dean, on recommendation of the head of department, to courses of the following year of study to a maximum of 50 credits, provided that it will fit in with the timetable.

- **BInstAgrar**

The minimum course credits needed to comply with degree requirements is set out at the end of each study programme.

Students must register for optional course credits in consultation with the head of department who must ensure that the courses do not clash on the set time table.

Promotion requirements:

A student will be promoted to the following year of study if less than 44 credits need to be carried over, unless the Dean on the recommendation of the head of department decides otherwise. A student who does not comply with the requirements of promotion to the following year of study, retains the credit for the courses already passed and may be admitted by the Dean, on recommendation of the Head of Department, to courses of the following year of study to a maximum of 44 credits, provided that it will fit in with the timetable.

- **BConsSc**

Admission to the next year of study.

(i) **All the degrees in Home Economics (except part-time studies)**

A student who did not pass all the prescribed modules of a particular year of study, has to register for the outstanding modules first. With the approval of the head of the department, modules of the following year of study may be taken in advance only if no timetable clashes occur; all the requirements and prerequisites have been met and not more than a specified number of credits per semester are taken. The credits of the semester of which modules are repeated, are taken as a guideline for the calculation of the number of credits permitted.

(aa) A student registers for the second year when at least 80% of the first-year course units have been passed.

(bb) A student registers for the third year when at least 85% of the course units of the previous years have been passed.

(cc) A student registers for the fourth year when at least 95% of the course units of the previous years have been passed.

(ii) **Part-time students**

A student is allowed to register for the next year of study only if at least the equivalent of four semester courses (eight modules, including courses not presented in the department) have been passed. A student is allowed to the modules KLD 320, GSS 310 and BEH 310 when the following courses have been passed.

- At first-year level: Psychology, Sociology and
- At second-year level: Psychology and Sociology.
- For admission to VBF 451 and VBF 452 the same prerequisites are required as well as Business Management at first-year level.

- **BSecEd(Sci)**

See Sc.7.6

**Sc.5  Special examinations in the Faculty of Natural and Agricultural Sciences**
A student who requires a  maximum of two modules to comply with all the requirements for the degree, may be admitted by the Dean, on the recommendation of the head of department, to special examinations in modules failed, provided that this will enable him or her to comply with all the degree requirements.  A student who has obtained a final mark of less than 40% in any one of the relevant modules, or who has previously been admitted to a special examination, does not qualify for this concession.

**Sc.6  Degree with distinction**

- **BSc**
    A student obtains his or her degree with distinction if all prescribed modules are passed at 300 level (or higher) in one academic year with a weighted average of at least 75%, and at least 65% in each of the relevant courses.
- **BSc(Food Management)**
    A student obtains his or her degree with distinction if an average of at least 75% is obtained in the following courses:
    Business Management 310
    Food Science 451, 452, 463
    Food service Management 451, 452
    Food Science and Technology 461.
- **BSc(Agric)**
    The BSc(Agric) degree is conferred with distinction if a student obtains a weighted average of at least 75% in the courses of the major subjects in the third and the fourth year of study, with a weighted average of at least 65 % in the other modules of the third and the fourth year of study.
- **BInstAgrar**
    The BInstAgrar degree is conferred with distinction on a student who obtains a weighted average of at least 75% in the courses of the major subjects in the third and the fourth year of study, as well as a weighted average of at least 65% in the other modules of the third and the fourth year of study.
- **BConsSc**
    A student obtains his or her degree with distinction if a student obtains an average of at least 75% in the following courses:
    **(i)    Clothing Management:**
    **Clothing Retail Management:**
    Subjects equivalent to six semester subjects
    Marketing Management 351, 352,361,362
    Clothing 410, 411, 420
    Clothing Production 420
    Project: Clothing and Textiles  400
    Textiles 420
    **Clothing Small Business Management:**
    Subjects equivalent to six semester subjects

Business Management 351, 352, 361, 362
Clothing 412, 411, 421
Clothing Production 320, 410, 420
Project: Clothing and Textiles 400
Entrepreneurship 313, 323
Textiles 420

**(ii)** **Food Management**
**Food Retail Management:**
Any six of the following semester subjects (one subject = one semester course or two modules)
Business Management 310
Marketing Management 351, 352, 361, 362
Foods 310, 353, 354, 320, 413, 415, 423, 425
**Hospitality Management:**
Tourism Management 320
Business Management 310, 320
Project Hospitality Management 451, 461
Foods 320, 414, 424
Foodservice Management 410

**(iii)** **Interior Merchandise Management**
**Interior Retail Management:**
A combinaiton equal to six semester subjects:
Marketing Management 351, 352, 361, 362
Interior Planning 320, 410
Interior Production 310
Interior Merchandise 220, 310
Interior Project 480
Consumer Facilitation 410
**Interior Merchandise Small Business Management:**
A combination equal to six semester subjects:
Business Management 313, 323
Interior Planning 320, 410
Interior Production 310
Interior Merchandise 220, 310
Interior Project 480
Consumer Facilitation 410

**(iv)** **Ed:**
**Home Economics:**
The degree is conferred with distinction on a student who obtains an average of at least 75% in the following courses:
SCE 400, 402, VBM 400, VHK 400 and any other four of the following courses:
BEH 310, KLD 320, VBF 410, VDS 320 and VWP 410
**Hotel-keeping and Catering:**

The degree is conferred with distinction on a student who obtains an average of at least 75% in the following courses:

SCE 400, 402, VBM 400, VHS 400 and any other four of the following:

VDB 320, VDG 310, VDS 320, 414, 424, TBE 320

- **BSecEd(Sci)**

See Sc.7.6

## Sc.7   STUDY PROGRAMMES

The curriculum is composed of one of the following study programmes. The Dean may, on the recommendation of the programme manager, approve deviations in this regard.

## Sc.7.1   GENERAL INFORMATION

(i)     Study programmes in the Department of Earth Science: Students will be informed timeously of compulsory excursions that could take place during the vacations. The attendance of excursions for first-year students is compulsory, while excursions of longer duration are compulsory for senior students.

(ii)    Students who have passed all their courses after the first two years (within a period of two years) of the BInstAgrar(Rural Development Management) with an average mark of 60% and, who would like to specialise in Agricultural Economics, can apply to the Head of Department to be admitted to the third year of the BSc(Agric): Agricultural Economics/Agribusiness degree programme. This **only applies** to students who are registered for the BInstAgrar: Rural Development Management degree programme.

(iii)   Students who register for COS- courses must take note of the following:
- Prohibited course combinations:
  COS 110 and INF 151; COS 221 and INF 251, 252; COS 222 and INF 261, 262; COS 301 and INF 351, 352, 353 and 363.
- Third-year modules in Computer Science will not necessarily always all be presented in the same year and COS 343 and COS 344 can be presented in alternate years.
- Students must pass at least three Computer Science modules at second-year level, before admission to the Computer Science courses at third-year level will be permitted, unless special permission has been granted by the head of department.

(ii)    Courses to be chosen as electives credits and that are not specified, may be chosen from any courses appearing in the Syllabus.

(iii)   **List of Codes**

Dept   =   Department in which the course is presented

**Faculty of Natural and Agricultural Sciences**

BCM   =   Department of Biochemistry
BOT   =   Department of Botany
CMY   =   Department of Chemistry
COS   =   Department of Computer Science
FLG   =   Department of Physiology
FSK   =   Department of Physics
GGY   =   Department of Geography, Geoinformatics and Meteorology
GLY   =   Department of Geology
GTS   =   Department of Genetics
LEK   =   Department of Agricultural Economics, Extension and Rural Development
MBY   =   Department of Microbiology and Plant Pathology
PGW   =   Department of Plant Production and Soil Science
SCE   =   Centre for Science, Mathematics and Technology Education
SCI   =   Gold Fields Computer Centre for Education
SEF   =   Centre for Science, Mathematics and Technology Education
VBR   =   Department of Consumer Science
VDW   =   Department of Food Science
VKU   =   Department of Animal and Wildlife Sciences
VWT   =   Department of Insurance and Actuarial Sciences
WST   =   Department of Mathematical Statistics
WTW   =   Department of Mathematics and Applied Mathematics
ZEN   =   Department of Zoology and Entomology

**Faculty of Economic and Management Sciences**

BDO   =   Department of Human Resource Management
BEM   =   Department of Marketing and Communication Management
EKN   =   Department of Economics
FRK   =   Department of Accounting and Financial Management
INF   =   Department of Informatics
OBS   =   Department of Business Management
TBE   =   Department of Tourism Management

**Faculty of Humanities**

EOT   =   Unit for Development of Language Skills
VKK   =   Department of Visual Arts
KGK   =   Department of Visual Arts
SLK   =   Department of Psychology
SOC   =   Department of Sociology

**Faculty of Engineering, Built Enviroment and Information Technology**

CIR   =   Department of Chemical Engineering

IGB    =    Department of Engineering Management
LBI    =    Department of Civil and Biosystems Engineering
MIT    =    Department of Mechanical and Aeronautical Engineering
SWK    =    Department of Civil and Biosystems Engineering
**Faculty of Health Sciences**
ANA    =    Department of Anatomy
FAR    =    Department of Pharmacology
**Not faculty bound**
DML    =    Damelin

**lpw/ppw**: lectures per week/ practicals per week (e.g.: 3+1 = 3 lectures and 1 practical per week)

**Quarter:** The quarter in which the specific course/module is presented.

J1 = the whole year (year module: extends over two semesters)

S1 = the first semester (K1 + K2); S2 = the second semester (K3 + K4)

K1 = first quarter; K2 = second quarter; K3 = third quarter; K4 = fourth quarter

**Credits:** Credit value of a module.

**#:** This symbol implies a module must be taken either before or concurrent with the course for which it is a prerequisite.

**TDH:** Approval from the head of department is required to register for the course.

**Par 1.2 and Par 2.2**: Refers to the requirements for specific courses that appear at the beginning of this publication

**Please note**: The credit values of the courses appear in the Crdt column.

| Field of study | Dept | Code |
|---|---|---|
| **BSc Animal Science** | **VKU** | **03134002** |

| First year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 4/4 | 38/38 |

| First year, second semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |

| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
|---|---|---|---|---|---|
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| DAF250 | ANIMAL_ANAT._&_PHYSIOLOGY_250 Prerequisite/s: [CMY127] or [TDH] | S1 | 4 | 1 | 18 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| VDG250 | NUTRITION_250 Prerequisite/s: [CMY127] | S1 | 3 | 0.5 | 12 |
| VKU210 | ANIMAL_SCIENCE_210 | S1 | 1 | 0.5 | 6 |
| Totals for compulsory modules in the first/second quarter | | | 16/16 | 4.5/4.5 | 42/42 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| DAF260 | ANIMAL_ANAT._&_PHYSIOLOGY_260 Prerequisite/s: [DAF250] | S2 | 4 | 1 | 18 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| VKU220 | ANIMAL_SCIENCE_220 Prerequisite/s: [VKU210] | S2 | 2 | 0.5 | 12 |
| Totals for compulsory modules in the third/fourth quarter | | | 14/14 | 4/4 | 39/39 |

**Compulsory credits = (162) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM355 | IMMUNOBIOLOGY_355 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] | S1 | 1 | 0.5 | 9 |
| DAN310 | ANIMAL_ANATOMY_310 Prerequisite/s: [DAF250] and [DAF260] | S1 | 1 | 0.5 | 8 |
| DFS311 | ANIMAL_PHYSIOLOGY_311 Prerequisite/s: [DAF250] and [DAF260] | S1 | 2 | 0 | 10 |
| GTS352 | GENOMES_352 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| RPL310 | REPRODUCTION_SCIENCE_310 Prerequisite/s: [DAF250] and [DAF260] | S1 | 1 | 0.5 | 8 |
| VGE301 | NUTRITIONAL_SCIENCE_301 Prerequisite/s: [BCM261] and [BCM262] and [DAF250] and [DAF260] and [VDG250] and [VKU220] | J1 | 3 | 0.5 | 16 |
| VKU412 | RESEARCH_METHODOLOGY_412 Prerequisite/s: [TDH] | S1 | 1 | 0 | 8 |
| WDE250 | PRINCIPLES_OF_VELD_MANAGM._250 | S1 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 13/13 | 3.5/3.5 | 44.5/44.5 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM363 | XENO_BIOCHEMISTRY_363 | K4 | 1 | 0 | 5 |
| DFS320 | GROWTH_PHYSIOLOGY_320 Prerequisite/s: [DAN310] and [DFS311] | S2 | 2 | 0.5 | 10 |
| GTS361 | HUMAN_GENETICS_361 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S2 | 2 | 1 | 18 |
| TLR320 | LIVESTOCK_BREEDING_320 Prerequisite/s: [GTS261] | S2 | 2 | 0.5 | 10 |
| VGE301 | NUTRITIONAL_SCIENCE_301 Prerequisite/s: [BCM261] and [BCM262] and [DAF250] and [DAF260] and [VDG250] and [VKU220] | J1 | 3 | 0.5 | 16 |
| VKU361 | ANIMAL_ECOLOGY_361 Prerequisite/s: [VKU210] and [VKU220] | S2 | 2 | 0 | 8 |
| VKU362 | ANIMAL_SCI._BIOTECHNOLOGY_362 Prerequisite/s: [GTS226] | S2 | 1 | 0.5 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/13 | 3/3 | 35/40 |

**Compulsory credits = (164) Elective credits = (0)**

**A minimum of (478) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Applied Mathematics** | **WTW** | **02133252** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| WST110 | MATHEMATICAL_STATISTICS_110 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| WTW115 | DISCRETE_STRUCTURES_115 Prerequisite/s: [Par 1.2] | S1 | 2 | 1 | 8 |
| WTW152 | MATHEMATICAL_MODELLING_152 Prerequisite/s: [Par 1.2] | S1 | 2 | 1 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 16/14 | 4/4 | 30/27 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| COS160 | COMPUTER_SCIENCE_160 Prerequisite/s: [Par 1.2; students who passed Computer Studies HG on grade 12 level will be exempted] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| WST120 | MATHEMATICAL_STATISTICS_120 Prerequisite/s: [WST110 GS] | S2 | 4 | 1 | 16 |
| WTW123 | NUMERICAL_ANALYSIS_123 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| WTW162 | DYNAMIC_PROCESSES_162 Prerequisite/s: [WTW114 GS or WTW101 GS] and [WTW152 GS] | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 18/20 | 6/6 | 35/38 |

Students who passed Computer studies HG at grade 12 level, may be exempted from COS160.

**Compulsory credits = (130) Elective credits = (22)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| WTW211 | LINEAR_ALGEBRA_211 Prerequisite/s: [WTW126 or WTW102] | S1 | 2 | 1 | 12 |
| WTW218 | CALCULUS_218 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S1 | 2 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 2/2 | 12/12 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| WTW220 | ANALYSIS_220 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S2 | 2 | 1 | 12 |
| WTW221 | LINEAR_ALGEBRA_221 Prerequisite/s: [WTW211] | S2 | 2 | 1 | 12 |
| WTW285 | DISCRETE_STRUCTURES_285 Prerequisite/s: [WTW115] | S2 | 2 | 1 | 12 |
| WTW286 | DIFFERENTIAL_EQUATIONS_286 Prerequisite/s: [WTW114 or WTW101] and [WTW126 or WTW102] and [WTW128 or WTW102] | S2 | 2 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 4/4 | 24/24 |

**Compulsory credits = (72) Elective credits = (72)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| WTW310 | ANALYSIS_310 Prerequisite/s: [WTW220] | S1 | 2 | 1 | 18 |
| WTW382 | DYNAMIC_SYSTEMS_382 Prerequisite/s: [WTW220] and [WTW286] | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 2/2 | 18/18 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|

| | | | | | |
|---|---|---|---|---|---|
| WTW383 | NUMERICAL_ANALYSIS_383 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] and [WTW211] | S2 | 2 | 1 | 18 |
| WTW385 | DISCRETE_STRUCTURES_385 Prerequisite/s: [WTW126 or WTW102] and [WTW218] and [WTW285] | S2 | 2 | 1 | 18 |
| WTW386 | PARTIAL_DIFF_EQUATIONS_386 Prerequisite/s: [WTW218] and [WTW286] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 6/6 | 3/3 | 27/27 |

A minimum of 136 credits at 100 to 300 level can be chosen from any WTW, IAS, PHY, CMY, COS or WST modules. The remainder of the electives at 100 to 300 level can be chosen from any other modules in the syllabi of this faculty.

**Compulsory credits = (90) Elective credits = (54)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Biochemistry** | **BCM** | **03133001** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

| | Compulsory credits = (152) Elective credits = (0) | | | | |
|---|---|---|---|---|---|

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM271 | BIOCHEMISTRY_PRACTICAL_271 Prerequisite/s: [BCM251 #] and [BCM252 #] and [BCM261 #] and [BCM262 #] and [CMY283 #] and [CMY284 #] | J1 | 0 | 1 | 6 |
| CMY282 | PHYSICAL_CHEMISTRY_282 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] and [WTW114 GS or WTW134 GS or WTW158 GS] | K1 | 4 | 1 | 12 |
| CMY284 | ORGANIC_CHEMISTRY_284 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K2 | 4 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 3/3 | 27/27 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM271 | BIOCHEMISTRY_PRACTICAL_271 Prerequisite/s: [BCM251 #] and [BCM252 #] and [BCM261 #] and [BCM262 #] and [CMY283 #] and [CMY284 #] | J1 | 0 | 1 | 6 |
| CMY283 | ANALYTICAL_CHEMISTRY_283 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K3 | 4 | 1 | 12 |
| CMY285 | INORGANIC_CHEMISTRY_285 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K4 | 4 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 3/3 | 27/27 |

Electives can be chosen from Genetics, Microbiology, Human Physiology, Botany or Zoology.

| | Compulsory credits = (108) Elective credits = (48) | | | | |
|---|---|---|---|---|---|

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM351 | BIOCHEMISTRY_OF_PROTEINS_351 Prerequisite/s: [BCM251] | K1 | 2 | 1 | 9 |
| BCM352 | PROTEOME_ANALYSIS_352 Prerequisite/s: [BCM251] and [BCM351 GS] | K2 | 2 | 1 | 9 |
| BCM354 | BIOCHEM._OF_NUCLEIC_ACIDS_354 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] | S1 | 1 | 0.5 | 9 |
| BCM355 | IMMUNOBIOLOGY_355 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] | S1 | 1 | 0.5 | 9 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 2/2 | 18/18 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM362 | NUTRITIONAL_BIOCHEMISTRY_362 | K3 | 1 | 0 | 4 |

| BCM363 | XENO_BIOCHEMISTRY_363 | K4 | 1 | 0 | 5 |
|--------|------------------------|----|----|-----|---|
| BCM364 | BUILDING_THE_CELL_364 | S2 | 1 | 0.5 | 9 |
| BCM365 | IMMUNOBIOCHEMISTRY_365 Prerequisite/s: [BCM355 GS] | S2 | 1 | 0.5 | 9 |
| BCM366 | ENZYMOLOGY_366 | S2 | 1 | 1 | 9 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/4 | 2/2 | 17.5/18.5 |

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| Electives can be chosen from Genetics, Microbiology, Human Physiology, Botany or Zoology. |
|---|

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| **Compulsory credits = (72) Elective credits = (72)** |
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| **A minimum of (452) credits is required to obtain the degree.** |
|---|

| Field of study | Dept | Code |
|---|---|---|
| **BSc Biological Sciences** | **ADM** | **03130001** |

| **First year, first semester:** | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |
| **First year, second semester:** | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

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| Generic first-year modules in Biological Sciences.<br>Students who wish to apply for selection to Veterinary Sciences must register for these modules. |
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| Field of study | Dept | Code |
|---|---|---|
| BSc Biotechnology | GTS | 03133052 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BOT251 | SA_FLORA_&_VEGETATION_251 Prerequisite/s: [BOT161] or [TDH] | S1 | 2 | 1 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| MBY251 | GROWTH_DIVERS.& CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |

| ZEN251 | INVERTEBRATE_BIOLOGY_251 | K1 | 4 | 1 | 12 |
|--------|--------------------------|----|----|----|----|
| | Totals for compulsory modules in the first/second quarter | | 14/10 | 4.5/3.5 | 42/30 |
| | | | | | |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| ZEN261 | AFRICAN_VERTEBRATES_261 | K3 | 4 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/10 | 4.5/3.5 | 42/30 |
| | | | | | |

**Compulsory credits = (144) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM351 | BIOCHEMISTRY_OF_PROTEINS_351 Prerequisite/s: [BCM251] | K1 | 2 | 1 | 9 |
| BCM354 | BIOCHEM._OF_NUCLEIC_ACIDS_354 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] | S1 | 1 | 0.5 | 9 |
| GTS352 | GENOMES_352 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 5/3 | 2.5/1.5 | 22.5/13.5 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| MBY364 | GENE.MANIPULATION/MICROBES.364 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 2/2 | 1/1 | 9/9 |

Electives can be chosen from the following list of modules: BOT352, BOT353, BOT354, BOT361, BCM352, BCM353, BCM365, BCM362, BCM364, FAR305, GTS351, GTS353, GTS361, GTS362, GTS363, MBY351. MBY352, MBY353, MBY361, MBY362, MBY363, PLG351, PLG361, PLG363, ZEN364, ZEN365 or in consultation with one of the Heads of Department in the School of Biological Sciences.
In order to focus the Biotechnology degree in a specific discipline it is necessary to ensure that at least three of the electives fall within the same discipline.

**Compulsory credits = (54) Elective credits = (90)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BSc Botany** | **BOT** | **03133091** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BOT251 | SA_FLORA_&_VEGETATION_251 Prerequisite/s: [BOT161] or [TDH] | S1 | 2 | 1 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| ZEN251 | INVERTEBRATE_BIOLOGY_251 | K1 | 4 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/10 | 4.5/3.5 | 42/30 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|

| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
|---|---|---|---|---|---|
| GLY161 | HISTORICAL_GEOLOGY_161 Prerequisite/s: [Par 1.2] | K3 | 4 | 1 | 8 |
| GLY162 | ENVIRONMENTAL_GEOLOGY_162 Prerequisite/s: [Par 1.2] | K4 | 4 | 1 | 8 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| ZEN261 | AFRICAN_VERTEBRATES_261 | K3 | 4 | 1 | 12 |
| Totals for compulsory modules in the third/fourth quarter | | | 14/10 | 4.5/3.5 | 38/26 |

| | |
|---|---|

**Compulsory credits = (136) Elective credits = (8)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BOT351 | POPULATION_BIOLOGY_351 Prerequisite/s: [BOT161] or [TDH] | S1 | 2 | 1 | 18 |
| BOT353 | ECOPHYSIOLOGY_353 Prerequisite/s: [BOT161] or [TDH] | S1 | 2 | 1 | 18 |
| Totals for compulsory modules in the first/second quarter | | | 4/4 | 2/2 | 18/18 |

BOT352 (18) may be selected in addition to or instead of BOT351 (18).

BOT354 (18) may be selected in addition to or instead of BOT353 (18).

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BOT361 | NATURAL_PRODUCT_CHEMISTRY_361 Prerequisite/s: [BOT161] or [TDH] and [CMY117] or [TDH] and [CMY127] or [TDH] | S2 | 2 | 1 | 18 |
| Totals for compulsory modules in the third/fourth quarter | | | 2/2 | 1/1 | 9/9 |

BOT362 (18) may be selected in addition to or instead of BOT361 (18).

Plant ecology students: BOT363 (18) and ZEN364(18).

Plant Physiology/Biotechnology/Biodiversity students: suitable elective modules.

**Compulsory credits = (54) Elective credits = (90)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Chemistry** | **CMY** | **02133172** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| PHY171 | FIRST_MODULE_IN_PHYSICS_171 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 16 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 16/16 | 3/3 | 30/30 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| PHY171 | FIRST_MODULE_IN_PHYSICS_171 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 16 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 16/16 | 4/4 | 30/30 |

**Compulsory credits = (120) Elective credits = (32)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CMY282 | PHYSICAL_CHEMISTRY_282 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] and [WTW114 GS or WTW134 GS or WTW158 GS] | K1 | 4 | 1 | 12 |
| CMY284 | ORGANIC_CHEMISTRY_284 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K2 | 4 | 1 | 12 |
| Totals for compulsory modules in the first/second quarter | | | 4/4 | 1/1 | 12/12 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CMY283 | ANALYTICAL_CHEMISTRY_283 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K3 | 4 | 1 | 12 |
| CMY285 | INORGANIC_CHEMISTRY_285 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K4 | 4 | 1 | 12 |
| Totals for compulsory modules in the third/fourth quarter | | | 4/4 | 1/1 | 12/12 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Biochemistry, Zoology and Entomology, Physics, Botany, Computer Science, Mathematics and Applied Mathematics.

**Compulsory credits = (48) Elective credits = (96)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CMY383 | ANALYTICAL_CHEMISTRY_383 Prerequisite/s: [CMY282] and [CMY283] and [CMY284] and [CMY285] | K2 | 4 | 1 | 18 |
| CMY385 | INORGANIC_CHEMISTRY_385 Prerequisite/s: [CMY282] and [CMY283] and [CMY284] and [CMY285] | K1 | 4 | 1 | 18 |
| Totals for compulsory modules in the first/second quarter | | | 4/4 | 1/1 | 18/18 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CMY382 | PHYSICAL_CHEMISTRY_382 Prerequisite/s: [CMY282] and [CMY283] and [CMY284] and [CMY285] | K4 | 4 | 1 | 18 |
| CMY384 | ORGANIC_CHEMISTRY_384 Prerequisite/s: [CMY282] and [CMY283] and [CMY284] and [CMY285] | K3 | 4 | 1 | 18 |
| Totals for compulsory modules in the third/fourth quarter | | | 4/4 | 1/1 | 18/18 |

**Compulsory credits = (72) Elective credits = (72)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| BSc Earth Sciences | GGY | 02133012 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| GLY151 | INTRODUCTORY_GEOLOGY_151 Prerequisite/s: [Par 1.2] | K1 | 4 | 1 | 8 |
| GLY152 | PHYSICAL_GEOLOGY_152 Prerequisite/s: [Par 1.2] | K2 | 4 | 1 | 8 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 3/3 | 30/30 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GGY162 | REMOTE_SENSING_162 Prerequisite/s: [Par 1.2] | S2 | 0 | 1 | 4 |
| GGY163 | BIOGEOGRAPHY_OF_SA_163 Prerequisite/s: [Par 1.2] | K3 | 4 | 0 | 6 |
| GGY164 | PHYSICAL_GEOGRAPHY_OF_SA_164 | K4 | 4 | 0 | 6 |
| GLY161 | HISTORICAL_GEOLOGY_161 Prerequisite/s: [Par 1.2] | K3 | 4 | 1 | 8 |
| GLY162 | ENVIRONMENTAL_GEOLOGY_162 Prerequisite/s: [Par 1.2] | K4 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 16/16 | 3/3 | 30/30 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Computer Science.

**Compulsory credits = (120) Elective credits = (32)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GGY252 | PROCESS_GEOMORPHOLOGY_252 | K2 | 4 | 2 | 12 |
| GGY283 | INTRODUCTORY_GIS_283 | S1 | 4 | 2 | 12 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 7/7 | 3/3 | 18/18 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Computer Science.

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Totals for compulsory modules in the third/fourth quarter | | 0/0 | 0/0 | 0/0 |

No compulsory modules. Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Computer Science.

**Compulsory credits = (36) Elective credits = (108)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| | Totals for compulsory modules in the first/second quarter | | 0/0 | 0/0 | 0/0 |

No compulsory modules. Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Computer Science.

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GGY361 | ENVIRONM.GEOMORPHOLOGY_361 | K3 | 4 | 2 | 18 |
| GGY362 | NATURAL_RESOURCE_MANAGEM.362 | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/4 | 2/2 | 18/18 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Computer Science.

**Compulsory credits = (36) Elective credits = (108)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Ecology** | **ZEN** | **03133031** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics | S2 | 4 | 1 | 16 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| | achievement.] | | | | |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BOT251 | SA_FLORA_&_VEGETATION_251 Prerequisite/s: [BOT161] or [TDH] | S1 | 2 | 1 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| ZEN251 | INVERTEBRATE_BIOLOGY_251 | K1 | 4 | 1 | 12 |
| Totals for compulsory modules in the first/second quarter | | | 14/10 | 4.5/3.5 | 42/30 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
| GLY161 | HISTORICAL_GEOLOGY_161 Prerequisite/s: [Par 1.2] | K3 | 4 | 1 | 8 |
| GLY162 | ENVIRONMENTAL_GEOLOGY_162 Prerequisite/s: [Par 1.2] | K4 | 4 | 1 | 8 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| ZEN261 | AFRICAN_VERTEBRATES_261 | K3 | 4 | 1 | 12 |
| Totals for compulsory modules in the third/fourth quarter | | | 14/10 | 4.5/3.5 | 38/26 |

**Compulsory credits = (136) Elective credits = (8)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT352 | PLANT_STRUCTURE_&_FUNCTION_352 Prerequisite/s: [BOT161] or | S1 | 2 | 1 | 18 |

| | | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| | [TDH] and [CMY117] or [TDH] and [CMY127] or [TDH] | | | | |
| BOT354 | PLANT_VARIATION_&EVOLUTION_354 Prerequisite/s: [BOT161] or [TDH] and [MLB111] or [TDH] | S1 | 2 | 1 | 18 |
| ZEN351 | POPULATION_ECOLOGY_351 | K1 | 4 | 2 | 18 |
| ZEN353 | COMMUNITY_ECOLOGY_353 | K2 | 4 | 2 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 4/4 | 36/36 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BOT363 | VEGETATION_SCIENCE_363 Prerequisite/s: [BOT161] or [TDH] | S2 | 2 | 1 | 18 |
| ZEN361 | ECO-PHYSIOLOGY_361 | K3 | 4 | 2 | 18 |
| ZEN362 | EVOLUTION_AND_PHYLOGENY_362 | K3 | 4 | 2 | 18 |
| ZEN364 | CONSERVATION_ECOLOGY_364 | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 10/6 | 5/3 | 45/27 |

**Compulsory credits = (144) Elective credits = (0)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Entomology** | **ZEN** | **03133041** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |

| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
|---|---|---|---|---|---|
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BOT251 | SA_FLORA_&_VEGETATION_251 Prerequisite/s: [BOT161] or [TDH] | S1 | 2 | 1 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| ZEN251 | INVERTEBRATE_BIOLOGY_251 | K1 | 4 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/10 | 4.5/3.5 | 42/30 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
| GLY161 | HISTORICAL_GEOLOGY_161 Prerequisite/s: [Par 1.2] | K3 | 4 | 1 | 8 |
| GLY162 | ENVIRONMENTAL_GEOLOGY_162 Prerequisite/s: [Par 1.2] | K4 | 4 | 1 | 8 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| ZEN261 | AFRICAN_VERTEBRATES_261 | K3 | 4 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/10 | 4.5/3.5 | 38/26 |

**Compulsory credits = (136) Elective credits = (8)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ZEN351 | POPULATION_ECOLOGY_351 | K1 | 4 | 2 | 18 |
| ZEN353 | COMMUNITY_ECOLOGY_353 | K2 | 4 | 2 | 18 |
| ZEN354 | PHYSIOLOGY_354 | K2 | 4 | 2 | 18 |
| ZEN355 | INSECT_DIVERSITY_355 | K2 | 4 | 2 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 4/12 | 2/6 | 18/54 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ZEN361 | ECO-PHYSIOLOGY_361 | K3 | 4 | 2 | 18 |
| ZEN362 | EVOLUTION_AND_PHYLOGENY_362 | K3 | 4 | 2 | 18 |
| ZEN364 | CONSERVATION_ECOLOGY_364 | K4 | 4 | 2 | 18 |
| ZEN365 | INSECT_PEST_MANAGEMENT_365 | K4 | 4 | 2 | 18 |

| | | | 8/8 | 4/4 | 36/36 |
|---|---|---|---|---|---|
| Totals for compulsory modules in the third/fourth quarter | | | 8/8 | 4/4 | 36/36 |

**Compulsory credits = (144) Elective credits = (0)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Environmental and Engineering Geology** | **GLY** | **02133042** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| GLY151 | INTRODUCTORY_GEOLOGY_151 Prerequisite/s: [Par 1.2] | K1 | 4 | 1 | 8 |
| GLY152 | PHYSICAL_GEOLOGY_152 Prerequisite/s: [Par 1.2] | K2 | 4 | 1 | 8 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 3/3 | 30/30 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GLY161 | HISTORICAL_GEOLOGY_161 Prerequisite/s: [Par 1.2] | K3 | 4 | 1 | 8 |
| GLY162 | ENVIRONMENTAL_GEOLOGY_162 Prerequisite/s: [Par 1.2] | K4 | 4 | 1 | 8 |
| SWK122 | MECHANICS_122 | S2 | 4 | 0 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 16/16 | 2/2 | 30/30 |

**Compulsory credits = (120) Elective credits = (32)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GLY251 | CRYSTAL_OPTICS_&_CRYS.CHEM.251 Prerequisite/s: [CMY117 GS] and [GLY151] | K1 | 4 | 2 | 12 |
| GLY252 | MINERALOGY_252 Prerequisite/s: [GLY251 GS] | K2 | 4 | 2 | 12 |
| GLY253 | SEDIMENTOLOGY_253 | K2 | 4 | 2 | 12 |
| GLY254 | STRUCTURAL_GEOLOGY_254 | K1 | 4 | 2 | 12 |
| SWK210 | STRENGTH_OF_MATERIALS_210 | S1 | 3 | 2 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 11/11 | 6/6 | 32/32 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CMY283 | ANALYTICAL_CHEMISTRY_283 Prerequisite/s: [CMY117 or | K3 | 4 | 1 | 12 |

| | | | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| | CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | | | | |
| GLY261 | IGNEOUS_PETROLOGY_261 | K3 | 4 | 2 | 12 |
| GLY262 | METAMORPHIC_PETROLOGY_262 Prerequisite/s: [GLY252] | K4 | 4 | 2 | 12 |
| GLY263 | SA_STRATIGRAPHY_&_ENG.GEOL.263 Prerequisite/s: [TDH] | K3 | 4 | 2 | 12 |
| GLY264 | INTRODUCTION_TO_GEOPHYSICS_264 Prerequisite/s: [TDH] | K4 | 4 | 2 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/8 | 5/4 | 36/24 |

**Compulsory credits = (124) Elective credits = (20)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GLY351 | GROUNDWATER_351 | K1 | 4 | 2 | 18 |
| GLY352 | ORE_FORMATION_352 Prerequisite/s: [GLY261] | K2 | 4 | 2 | 18 |
| GTX351 | ENGINEERING_GEOLOGY_351 Prerequisite/s: [GLY262] and [GLY264] or [TDH] | K1 | 4 | 2 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/4 | 4/2 | 36/18 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GLY361 | ORE_DEPOSITS_361 | K3 | 4 | 2 | 18 |
| GLY362 | GEOSTAT.&_ORE_RESERV._CALC.362 | K4 | 4 | 2 | 18 |
| GTX361 | SOIL_MECHANICS_361 | S2 | 4 | 2 | 13 |
| PSZ320 | ROCK_MECHANICS_320 Prerequisite/s: [SWK210] or [SWK220] | S2 | 3 | 1 | 17 |
| | Totals for compulsory modules in the third/fourth quarter | | 11/11 | 5/5 | 33/33 |

Electives for the first to third year can be chosen the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Physics, Computer Science, Mining Engineering and Civil and Biosystems Engineering.

**Compulsory credits = (120) Elective credits = (24)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Environmental Sciences** | **GGY** | **02133361** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 3/3 | 30/30 |

**WTW 134 can be taken instead of WTW 114.**

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GGY162 | REMOTE_SENSING_162 Prerequisite/s: [Par 1.2] | S2 | 0 | 1 | 4 |
| GGY163 | BIOGEOGRAPHY_OF_SA_163 Prerequisite/s: [Par 1.2] | K3 | 4 | 0 | 6 |
| GGY164 | PHYSICAL_GEOGRAPHY_OF_SA_164 | K4 | 4 | 0 | 6 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 18/14 | 3.5/2.5 | 34/26 |

Electives can be chosen from the following the departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Zoology and Entomology, Archeology and Computer Science.

**Compulsory credits = (120) Elective credits = (32)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT251 | SA_FLORA_&_VEGETATION_251 Prerequisite/s: [BOT161 ] or [TDH] | S1 | 2 | 1 | 12 |
| GGY252 | PROCESS_GEOMORPHOLOGY_252 | K2 | 4 | 2 | 12 |
| GGY283 | INTRODUCTORY_GIS_283 | S1 | 4 | 2 | 12 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| ZEN251 | INVERTEBRATE_BIOLOGY_251 | K1 | 4 | 1 | 12 |
| Totals for compulsory modules in the first/second quarter | | | 13/9 | 5/4 | 36/24 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
| ZEN261 | AFRICAN_VERTEBRATES_261 | K3 | 4 | 1 | 12 |
| Totals for compulsory modules in the third/fourth quarter | | | 6/2 | 2/1 | 18/6 |

No compulsory modules in the fourth quarter. Electives can be chosen from the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Zoology and Entomology, Archeology and Computer Science.

**Compulsory credits = (84) Elective credits = (60)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| Totals for compulsory modules in the first/second quarter | | | 0/0 | 0/0 | 0/0 |

No compulsory modules.

| Third year, second semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| GGY361 | ENVIRONM.GEOMORPHOLOGY_361 | K3 | 4 | 2 | 18 |
| GGY362 | NATURAL_RESOURCE_MANAGEM.362 | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/4 | 2/2 | 18/18 |

Electives can be chosen from modules in the departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Zoology and Entomology, Archeology and Computer Science.

**Compulsory credits = (36) Elective credits = (108)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Exploration Geophysics** | **GLY** | **02133192** |

| First year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| GLY151 | INTRODUCTORY_GEOLOGY_151 Prerequisite/s: [Par 1.2] | K1 | 4 | 1 | 8 |
| GLY152 | PHYSICAL_GEOLOGY_152 Prerequisite/s: [Par 1.2] | K2 | 4 | 1 | 8 |
| PHY171 | FIRST_MODULE_IN_PHYSICS_171 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 16 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 3/3 | 30/30 |
| First year, second semester: | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GLY161 | HISTORICAL_GEOLOGY_161 Prerequisite/s: [Par 1.2] | K3 | 4 | 1 | 8 |
| GLY162 | ENVIRONMENTAL_GEOLOGY_162 Prerequisite/s: [Par 1.2] | K4 | 4 | 1 | 8 |
| PHY171 | FIRST_MODULE_IN_PHYSICS_171 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 16 |
| WTW123 | NUMERICAL_ANALYSIS_123 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 18/18 | 5/5 | 34/34 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Physics and Computer Science.

**Compulsory credits = (128) Elective credits = (24)**

| Second year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| GLY253 | SEDIMENTOLOGY_253 | K2 | 4 | 2 | 12 |
| GLY254 | STRUCTURAL_GEOLOGY_254 | K1 | 4 | 2 | 12 |
| PHY251 | GENERAL_PHYSICS_251 Prerequisite/s: [PHY171 or PHY101,102] and [WTW211 #] and [WTW218 #] | K1 | 4 | 2 | 12 |
| PHY252 | MODERN_PHYSICS_252 Prerequisite/s: [PHY171 or PHY101,102] and [PHY251 #] and [WTW211 #] and [WTW218 #] | K2 | 4 | 2 | 12 |
| WTW211 | LINEAR_ALGEBRA_211 Prerequisite/s: [WTW126 or WTW102] | S1 | 2 | 1 | 12 |
| WTW218 | CALCULUS_218 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S1 | 2 | 1 | 12 |
| WTW283 | NUMERICAL_ANALYSIS_283 | S1 | 2 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/14 | 7/7 | 42/42 |

| Second year, second semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| GLY263 | SA_STRATIGRAPHY_&_ENG.GEOL.263 Prerequisite/s: [TDH] | K3 | 4 | 2 | 12 |
| GLY264 | INTRODUCTION_TO_GEOPHYSICS_264 Prerequisite/s: [TDH] | K4 | 4 | 2 | 12 |
| PHY361 | ELECTROMAGNET_&_ELECTRONIC_361 Prerequisite/s: [PHY251] and [PHY252] | K3 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/4 | 4/2 | 30/12 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Physics and Computer Science.

**Compulsory credits = (126) Elective credits = (18)**

| Third year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| GLY351 | GROUNDWATER_351 | K1 | 4 | 2 | 18 |
| GPH352 | APPLIED_NUMERICAL_METHODS_352 Prerequisite/s: [TDH] | K2 | 4 | 2 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 2/2 | 18/18 |

| Third year, second semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| GLY361 | ORE_DEPOSITS_361 | K3 | 4 | 2 | 18 |
| GLY362 | GEOSTAT.&_ORE_RESERV._CALC.362 | K4 | 4 | 2 | 18 |
| GPH361 | GRAVITY_METHODS_361 | K3 | 4 | 2 | 18 |
| GPH362 | MAGNETIC_METHODS_362 | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 4/4 | 36/36 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Physics and Computer Science.

**Compulsory credits = (108) Elective credits = (36)**
**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Financial Mathematics** | **WTW** | **02133382** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| EKN113 | ECONOMICS_113 | S1 | 3 | 0 | 15 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| FBS110 | FINANCIAL_MANAGEMENT_110 Prerequisite/s: [Par 1.2] | S1 | 3 | 0 | 10 |
| WST110 | MATHEMATICAL_STATISTICS_110 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 18/16 | 2/2 | 34.5/31.5 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| COS160 | COMPUTER_SCIENCE_160 Prerequisite/s: [Par 1.2; students who passed Computer Studies HG on grade 12 level will be exempted] | S2 | 4 | 1 | 16 |
| EKN123 | ECONOMICS_123 Prerequisite/s: [EKN113 GS] | S2 | 3 | 0 | 15 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| FBS120 | FINANCIAL_MANAGEMENT_120 Prerequisite/s: [Par 1.2] | S2 | 3 | 0 | 10 |
| WST120 | MATHEMATICAL_STATISTICS_120 Prerequisite/s: [WST110 GS] | S2 | 4 | 1 | 16 |
| WTW123 | NUMERICAL_ANALYSIS_123 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/24 | 5/5 | 43.5/46.5 |

Students who passed Computer studies HG at grade 12-level, may be exempted from COS160.

**Compulsory credits = (156) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| IAS211 | ACTUARIAL_MATHEMATICS_211 Prerequisite/s: [WTW114] and [WTW128] | S1 | 2 | 1 | 12 |
| INF214 | INFORMATICS_214 Prerequisite/s: [CIL171] and [CIL172] and [CIL173] and [CIL174] | S1 | 3 | 1 | 14 |
| WST210 | MATHEMATICAL_STATISTICS_210 Prerequisite/s: [WST110] and [WST120] and [WTW114 GS or WTW101 GS] and [WTW126 GS or WTW102 GS] and [WTW128 GS or WTW102 GS] | S1 | 4 | 2 | 24 |
| WTW211 | LINEAR_ALGEBRA_211 Prerequisite/s: [WTW126 or WTW102] | S1 | 2 | 1 | 12 |
| WTW218 | CALCULUS_218 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S1 | 2 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 13/13 | 6/6 | 37/37 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| IAS221 | ACTUARIAL_MATHEMATICS_221 Prerequisite/s: [IAS211 GS] | S2 | 2 | 1 | 12 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WST220 | MATHEMATICAL_STATISTICS_220 Prerequisite/s: [WST210 GS] | S2 | 4 | 2 | 24 |
| WTW220 | ANALYSIS_220 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S2 | 2 | 1 | 12 |
| WTW221 | LINEAR_ALGEBRA_221 Prerequisite/s: [WTW211] | S2 | 2 | 1 | 12 |
| WTW286 | DIFFERENTIAL_EQUATIONS_286 Prerequisite/s: [WTW114 or WTW101] and [WTW126 or WTW102] and [WTW128 or WTW102] | S2 | 2 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/12 | 6/6 | 36/36 |

Electives: IAS261, IAS262 (if presented).

**Compulsory credits = (146) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WST310 | MATHEMATICAL_STATISTICS_310 Prerequisite/s: [WST210] and [WST220] and [WTW211 GS] and [WTW218 GS] | S1 | 4 | 2 | 36 |
| WTW310 | ANALYSIS_310 Prerequisite/s: [WTW220] | S1 | 2 | 1 | 18 |
| WTW354 | FINANCIAL_ENGINEERING_354 Prerequisite/s: [WST210] and [WTW211] and [WTW218] | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 4/4 | 36/36 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WST361 | MATHEMATICAL_STATISTICS_361 Prerequisite/s: [WST210] and [WST220] and [WTW211 GS] and [WTW218 GS] | S2 | 2 | 1 | 18 |
| WTW364 | FINANCIAL_ENGINEERING_364 Prerequisite/s: [WST210] and [WTW211] and [WTW218] and [WTW220] and [WTW286] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/4 | 2/2 | 18/18 |

Electives: AKM702, AKT780, IAS351, IAS352, IAS361, IAS362, WST362, WTW332(if presented), WTW382(if presented), WTW383, WTW386.

**Compulsory credits = (108) Elective credits = (54)**
**A minimum of (464) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Food Management** | **VBR** | **02133384** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

Nat and Agric Sciences 2003

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| SEM180 | SEMINAR_180 | S2 | 2 | 0 | 6 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 22/18 | 4.5/3.5 | 41/33 |

**Compulsory credits = (150) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| FSG110 | PHYSIOLOGY_110 | S1 | 3 | 0 | 6 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| OBS110 | BUSINESS_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| OPI250 | EXPER._TRAINING_IN_INDUST._250 | J1 | 1 | 0 | 3 |
| OPI260 | EXPER._TRAINING_IN_INDUST._260 | J1 | 1 | 0 | 3 |
| VDS110 | FOODS_110 | S1 | 3 | 0 | 8 |
| VDS210 | FOODS_210 | S1 | 3 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 3/3 | 41/41 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| FSG120 | PHYSIOLOGY_120 Prerequisite/s: [FSG110 GS] | S2 | 3 | 0 | 6 |
| KEP220 | CULTURAL_EATING_PATTERNS_220 | S2 | 3 | 0 | 8 |
| OBS120 | BUSINESS_MANAGEMENT_120 | S2 | 3 | 0 | 10 |
| OPI250 | EXPER._TRAINING_IN_INDUST._250 | J1 | 1 | 0 | 3 |
| OPI260 | EXPER._TRAINING_IN_INDUST._260 | J1 | 1 | 0 | 3 |
| VDS221 | FOODS_221 Prerequisite/s: [VDS210] | S2 | 3 | 1 | 16 |
| Totals for compulsory modules in the third/fourth quarter | | | 18/18 | 2/2 | 35/35 |

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**Compulsory credits = (152) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| FST351 | FOOD_CHEMISTRY-(1)_351 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] or [TDH] | S1 | 2 | 1 | 18 |
| FST352 | FOOD_CHEMISTRY-(2)_352 Prerequisite/s: [FST351] | S1 | 2 | 1 | 18 |
| OBS210 | BUSINESS_MANAGEMENT_210 | S1 | 3 | 0 | 16 |
| VDG310 | NUTRITION_310 Prerequisite/s: [FSG110 or VDG220] and [FSG120 or VDG163] | S1 | 3 | 1 | 14 |
| | Totals for compulsory modules in the first/second quarter | | 10/10 | 3/3 | 33/33 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| FST260 | PRIN/FOOD_PROC._&_PRESERV._260 Prerequisite/s: [CMY117] and [CMY127] and [MBY161] and [PHY131] and [WTW134] or [TDH] | S2 | 2 | 1 | 12 |
| VDB320 | FOOD_SERVICE_MANAGEMENT_320 Prerequisite/s: [VDS320 #] | S2 | 4 | 1 | 20 |
| VDG320 | NUTRITION_320 Prerequisite/s: [VDG310] | S2 | 3 | 1 | 14 |
| VDS320 | FOODS_320 Prerequisite/s: [KEP220] and [KEP261] and [VDS220] and [VDS221] | S2 | 5 | 2 | 30 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/14 | 5/5 | 38/38 |

**Compulsory credits = (142) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM110 | MARKETING_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| FST411 | SENSORY_ANAL.&QUAL.MAN.SYS.411 Prerequisite/s: [FST260] and [FST351] and [FST352 ] or [TDH] | S1 | 2 | 1 | 20 |
| OBS310 | BUSINESS_MANAGEMENT_310 | S1 | 4 | 0 | 20 |
| OPI450 | EXPER._TRAINING_IN_INDUST._450 | J1 | 1 | 0 | 5 |
| VDB410 | FOOD_SERVICE_MANAGEMENT_410 Prerequisite/s: [VDB320] | S1 | 3 | 1 | 16 |
| VDB411 | PROJECT_FOOD_SERVICE_MANAG_411 Prerequisite/s: [VDB410 #] | S1 | 2 | 0 | 6 |
| VDS413 | FOODS_413 Prerequisite/s: [VDS310] | S1 | 3 | 1 | 24 |
| | Totals for compulsory modules in the first/second quarter | | 18/18 | 3/3 | 50.5/50.5 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM161 | MARKETING_MANAGEMENT_161 | K3 | 3 | 0 | 5 |
| BEM162 | MARKETING_MANAGEMENT_162 | K4 | 3 | 0 | 5 |
| MBY362 | FOOD_MICROBIOLOGY_362 Prerequisite/s: [MBY251] | S2 | 2 | 1 | 18 |
| OPI450 | EXPER._TRAINING_IN_INDUST._450 | J1 | 1 | 0 | 5 |
| VDS422 | PROJECT_FOODS_422 Prerequisite/s: [VDS310] | S2 | 1 | 2 | 20 |
| VDS423 | FOODS_423 | S2 | 3 | 0 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 10/10 | 3/3 | 30.5/30.5 |

**Compulsory credits = (162) Elective credits = (0)**

**A minimum of (606) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| BSc Food Science | VDW | 03134011 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| FSG110 | PHYSIOLOGY_110 | S1 | 3 | 0 | 6 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 23/23 | 4/4 | 41/41 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| FSG120 | PHYSIOLOGY_120 Prerequisite/s: [FSG110 GS] | S2 | 3 | 0 | 6 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 19/19 | 3.5/3.5 | 33/33 |
| **Compulsory credits = (148) Elective credits = (0)** | | | | | |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| FST250 | INTRO/FOOD_SCIENCE_&_TECH._250 Prerequisite/s: [CMY117] and [CMY127] and [MBY161] and [PHY131] and [WTW134] or [TDH] | S1 | 2 | 1 | 12 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: | S1 | 2 | 1 | 12 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| | [MBY161 GS] | | | | |
| VDG250 | NUTRITION_250 Prerequisite/s: [CMY127] | S1 | 3 | 0.5 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 11/11 | 3.5/3.5 | 30/30 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| FST260 | PRIN/FOOD_PROC._&_PRESERV._260 Prerequisite/s: [CMY117] and [CMY127] and [MBY161] and [PHY131] and [WTW134] or [TDH] | S2 | 2 | 1 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 3/3 | 24/24 |

**Compulsory credits = (108) Elective credits = (40)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| FST350 | INTEGRATED_FOOD_SCIENCE_350 Prerequisite/s: [FST250] and [FST260] or [TDH] | S1 | 1 | 0 | 18 |
| FST351 | FOOD_CHEMISTRY-(1)_351 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] or [TDH] | S1 | 2 | 1 | 18 |
| FST352 | FOOD_CHEMISTRY-(2)_352 Prerequisite/s: [FST351] | S1 | 2 | 1 | 18 |
| FST353 | FOOD_ENGINEERING_353 Prerequisite/s: [CMY117] and [CMY127] and [FST260] and [PHY131] and [WTW134] or [TDH] | S1 | 3 | 0.5 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 2.5/2.5 | 36/36 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| FST360 | PLANT_FOOD_SCIENCE_360 Prerequisite/s: [FST250] and [FST260] and [FST351] and [FST352] or [TDH] | S2 | 2 | 1 | 18 |
| FST361 | ANIMAL_FOOD_SCIENCE_361 Prerequisite/s: [FST250] and [FST260] and [FST351] and [FST352] or [TDH] | S2 | 2 | 1 | 18 |
| MBY362 | FOOD_MICROBIOLOGY_362 Prerequisite/s: [MBY251] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 6/6 | 3/3 | 27/27 |

**Compulsory credits = (126) Elective credits = (18)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BSc Genetics** | **GTS** | **03133051** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BOT251 | SA_FLORA_&_VEGETATION_251 Prerequisite/s: [BOT161 ] or [TDH] | S1 | 2 | 1 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| ZEN251 | INVERTEBRATE_BIOLOGY_251 | K1 | 4 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/10 | 4.5/3.5 | 42/30 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BOT261 | PLANT_BIOCHEM._EVOLUTION _261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| ZEN261 | AFRICAN_VERTEBRATES_261 | K3 | 4 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/10 | 4.5/3.5 | 42/30 |

|  |
|---|
| **Compulsory credits = (144) Elective credits = (0)** |

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| GTS351 | EUKARYOTIC_GENE_CON.&_DEVL.351 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| GTS352 | GENOMES_352 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| GTS353 | ADV._POPULATION_GENETICS_353 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 6/6 | 3/3 | 27/27 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| GTS361 | HUMAN_GENETICS_361 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S2 | 2 | 1 | 18 |
| GTS362 | INTRODUCTION_TO_PLANTBREED.362 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S2 | 2 | 1 | 18 |
| GTS363 | EVOLUTIO._&_PHYLO-GENETICS_363 Prerequisite/s: [GTS353 GS] or [TDH] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 6/6 | 3/3 | 27/27 |

Electives can be chosen from the following list of third-year modules: BCM351, BCM352, BCM354, BCM355, BCM364, BCM365, BCM366, BOT351, BOT352, BOT353, BOT354, BOT361, BOT362, BOT363, FAR305, MBY351, MBY352, MBY353, MBY361, MBY362, MBY363, MBY364, PLG351, PLG361, PLG362, PLG363, ZEN351, ZEN352, ZEN353, ZEN354, ZEN355, ZEN361, ZEN362, ZEN363, ZEN364, ZEN365.

|  |
|---|
| **Compulsory credits = (108) Elective credits = (36)** |

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BSc Geography** | **GGY** | **02133385** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| GGY132 | CARTOGRAPHIC_SKILLS_132 Prerequisite/s: [Par 1.2] | S1 | 0 | 1 | 4 |
| GGY153 | GEOGRAPHY_OF_CITIES_153 Prerequisite/s: [Par 1.2] | K1 | 4 | 0 | 6 |

| GGY154 | GEOGRAPHY_OF_TOURISM_154 Prerequisite/s: [Par 1.2] | K2 | 4 | 0 | 6 |
|--------|---------------------------------------------------|-----|-----|-----|-----|
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 12/12 | 2/2 | 22/22 |

**WTW 134 can be taken instead of WTW 114.**

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|--------|--------------------------------------------------|-----|-----|-----|------|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GGY162 | REMOTE_SENSING_162 Prerequisite/s: [Par 1.2] | S2 | 0 | 1 | 4 |
| GGY163 | BIOGEOGRAPHY_OF_SA_163 Prerequisite/s: [Par 1.2] | K3 | 4 | 0 | 6 |
| GGY164 | PHYSICAL_GEOGRAPHY_OF_SA_164 | K4 | 4 | 0 | 6 |
| Totals for compulsory modules in the third/fourth quarter | | | 8/8 | 1/1 | 14/14 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Plant Production and Soil Science, Chemistry, Botany, Geology, Mathematics and Applied Mathematics, Computer Science, Archaeology, Anthropology, Economics, History, Psychology, Sociology, Political Sciences.

**Compulsory credits = (72) Elective credits = (80)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|--------|-----------------------------|-----|-----|-----|------|
| GGY252 | PROCESS_GEOMORPHOLOGY_252 | K2 | 4 | 2 | 12 |
| GGY283 | INTRODUCTORY_GIS_283 | S1 | 4 | 2 | 12 |
| Totals for compulsory modules in the first/second quarter | | | 4/4 | 2/2 | 12/12 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|--------|-----------------------------|-----|-----|-----|------|
| GGY263 | URBAN_MODELLING_263 | K3 | 4 | 2 | 12 |
| GGY264 | URBAN_SOCIAL_MORPHOLOGY_264 | K4 | 4 | 2 | 12 |
| Totals for compulsory modules in the third/fourth quarter | | | 4/4 | 2/2 | 12/12 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Plant Production and Soil Science, Chemistry, Botany, Geology, Mathematics and Applied Mathematics, Computer Science, Archaeology, Anthropology, Economics, History, Psychology, Sociology, Political Sciences.

**Compulsory credits = (48) Elective credits = (96)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|--------|-------------------------------|-----|-----|-----|------|
| GGY353 | URBAN_DEVELOPMENT_STUDIES_353 | K2 | 4 | 2 | 18 |
| GGY354 | DEVELOPMENT_GEOGRAPHY_354 | K1 | 4 | 2 | 18 |
| Totals for compulsory modules in the first/second quarter | | | 4/4 | 2/2 | 18/18 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|--------|---------------------------|-----|-----|-----|------|
| GGY361 | ENVIRONM.GEOMORPHOLOGY_361 | K3 | 4 | 2 | 18 |

| GGY362 | NATURAL_RESOURCE_MANAGEM.362 | K4 | 4 | 2 | 18 |
|---|---|---|---|---|---|
| | Totals for compulsory modules in the third/fourth quarter | | 4/4 | 2/2 | 18/18 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Plant Production and Soil Science, Chemistry, Botany, Geology, Mathematics and Applied Mathematics, Computer Science, Archaeology, Anthropology, Economics, History, Psychology, Sociology, Political Sciences.

**Compulsory credits = (72) Elective credits = (72)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Geoinformatics** | **GGY** | **02133383** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| GGY132 | CARTOGRAPHIC_SKILLS_132 Prerequisite/s: [Par 1.2] | S1 | 0 | 1 | 4 |
| GGY153 | GEOGRAPHY_OF_CITIES_153 Prerequisite/s: [Par 1.2] | K1 | 4 | 0 | 6 |
| GGY154 | GEOGRAPHY_OF_TOURISM_154 Prerequisite/s: [Par 1.2] | K2 | 4 | 0 | 6 |
| GMC110 | CARTOGRAPHY_110 Prerequisite/s: [GGY132] | S1 | 3 | 0 | 8 |
| INF112 | INFORMATICS_112 Prerequisite/s: [Par 1.2] | S1 | 3 | 0 | 10 |
| INF153 | INFORMATICS_153 Prerequisite/s: [Par 1.2] | S1 | 2 | 0 | 5 |
| INF154 | INFORMATICS_154 Prerequisite/s: [Par 1.2] | S1 | 1 | 2 | 5 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 21/21 | 4/4 | 36/36 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GGY162 | REMOTE_SENSING_162 Prerequisite/s: [Par 1.2] | S2 | 0 | 1 | 4 |
| GGY163 | BIOGEOGRAPHY_OF_SA_163 Prerequisite/s: [Par 1.2] | K3 | 4 | 0 | 6 |
| GGY164 | PHYSICAL_GEOGRAPHY_OF_SA_164 | K4 | 4 | 0 | 6 |
| INF163 | INFORMATICS_163 Prerequisite/s: [INF153 GS] | S2 | 2 | 0 | 5 |
| INF164 | INFORMATICS_164 Prerequisite/s: [INF154 GS] | S2 | 1 | 2 | 5 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 15/15 | 5/5 | 27/27 |
| | **Compulsory credits = (126) Elective credits = (26)** | | | | |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GGY283 | INTRODUCTORY_GIS_283 | S1 | 4 | 2 | 12 |
| GMC210 | CARTOGRAPHY_210 Prerequisite/s: [GMC110] | S1 | 3 | 1 | 12 |

| | | | | | |
|---|---|---|---|---|---|
| INF214 | INFORMATICS_214 Prerequisite/s: [CIL171] and [CIL172] and [CIL173] and [CIL174] | S1 | 3 | 1 | 14 |
| WST110 | MATHEMATICAL_STATISTICS_110 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 14/10 | 5/3 | 33/21 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GIS220 | GEOGRAPHIC_DATA_ANALYSIS_220 | S2 | 3 | 1 | 12 |
| GMA220 | REMOTE_SENSING_220 Prerequisite/s: [GPS220] or [TDH] | S2 | 3 | 1 | 16 |
| INF261 | INFORMATICS_261 Prerequisite/s: [INF214 GS] | K3 | 3 | 2 | 7 |
| INF262 | INFORMATICS_262 | K4 | 3 | 2 | 7 |
| SUR220 | SURVEYING_220 Prerequisite/s: [WTW114 GS] | S2 | 3 | 1 | 16 |
| WST120 | MATHEMATICAL_STATISTICS_120 Prerequisite/s: [WST110 GS] | S2 | 4 | 1 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/14 | 5/5 | 37/37 |

**Compulsory credits = (128) Elective credits = (16)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GIS310 | GEOGRAPHIC_INFORMATION_SYS.310 Prerequisite/s: [GGY283 or [TDH] | S1 | 3 | 1 | 24 |
| GMC310 | CARTOGRAPHY_310 Prerequisite/s: [GMC210] | S1 | 3 | 1 | 24 |
| | Totals for compulsory modules in the first/second quarter | | 6/6 | 2/2 | 24/24 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GIS320 | SPATIAL_ANALYSIS_320 Prerequisite/s: [GIS310] or [TDH] | S2 | 3 | 1 | 24 |
| GMA320 | REMOTE_SENSING_320 Prerequisite/s: [GMA220] and [WST161] and [WST162] | S2 | 3 | 1 | 24 |
| GMT320 | PROJECT:_GEOMATICS_320 Prerequisite/s: [GIS310] or [TDH] | S2 | 3 | 1 | 24 |
| | Totals for compulsory modules in the third/fourth quarter | | 9/9 | 3/3 | 36/36 |

**Compulsory credits = (120) Elective credits = (24)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| BSc Geology | GLY | 02133022 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| GLY151 | INTRODUCTORY_GEOLOGY_151 Prerequisite/s: [Par 1.2] | K1 | 4 | 1 | 8 |
| GLY152 | PHYSICAL_GEOLOGY_152 Prerequisite/s: [Par 1.2] | K2 | 4 | 1 | 8 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 3/3 | 30/30 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|

| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
|---|---|---|---|---|---|
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GLY161 | HISTORICAL_GEOLOGY_161 Prerequisite/s: [Par 1.2] | K3 | 4 | 1 | 8 |
| GLY162 | ENVIRONMENTAL_GEOLOGY_162 Prerequisite/s: [Par 1.2] | K4 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 12/12 | 2/2 | 22/22 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Physics, Computer Science, Mining Engineering and Civil and Biosystems Engineering.

**Compulsory credits = (104) Elective credits = (48)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GLY251 | CRYSTAL_OPTICS_&_CRYS.CHEM.251 Prerequisite/s: [CMY117 GS] and [GLY151] | K1 | 4 | 2 | 12 |
| GLY252 | MINERALOGY_252 Prerequisite/s: [GLY251 GS] | K2 | 4 | 2 | 12 |
| GLY253 | SEDIMENTOLOGY_253 | K2 | 4 | 2 | 12 |
| GLY254 | STRUCTURAL_GEOLOGY_254 | K1 | 4 | 2 | 12 |
| Totals for compulsory modules in the first/second quarter | | | 8/8 | 4/4 | 24/24 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GLY261 | IGNEOUS_PETROLOGY_261 | K3 | 4 | 2 | 12 |
| GLY262 | METAMORPHIC_PETROLOGY_262 Prerequisite/s: [GLY252] | K4 | 4 | 2 | 12 |
| GLY263 | SA_STRATIGRAPHY_&_ENG.GEOL.263 Prerequisite/s: [TDH] | K3 | 4 | 2 | 12 |
| GLY264 | INTRODUCTION_TO_GEOPHYSICS_264 Prerequisite/s: [TDH] | K4 | 4 | 2 | 12 |
| Totals for compulsory modules in the third/fourth quarter | | | 8/8 | 4/4 | 24/24 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Physics, Computer Science, Mining Engineering and Civil and Biosystems Engineering.

**Compulsory credits = (96) Elective credits = (48)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GLY351 | GROUNDWATER_351 | K1 | 4 | 2 | 18 |
| GLY352 | ORE_FORMATION_352 Prerequisite/s: [GLY261] | K2 | 4 | 2 | 18 |
| Totals for compulsory modules in the first/second quarter | | | 4/4 | 2/2 | 18/18 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GLY361 | ORE_DEPOSITS_361 | K3 | 4 | 2 | 18 |
| GLY362 | GEOSTAT.&_ORE_RESERV._CALC.362 | K4 | 4 | 2 | 18 |

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| Totals for compulsory modules in the third/fourth quarter | 4/4 | 2/2 | 18/18 |

Electives can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Physics, Computer Science, Mining Engineering and Civil and Biosystems Engineering.

**Compulsory credits = (72) Elective credits = (72)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Human Genetics** | **GTS** | **03134031** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 22/18 | 5/4 | 42/34 |
| **Compulsory credits = (152) Elective credits = (0)** | | | | | |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 | S1 | 2 | 0.5 | 12 |

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| | | | | | |
|---|---|---|---|---|---|
| | GS] and [CMY127 GS] and [MLB111 GS] | | | | |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BME210 | BIOMETRY_210 Prerequisite/s: [BME120] | S1 | 4 | 1 | 24 |
| FLG211 | INTRODUCTORY_&_NEUROPHYS.211 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] and [PHY171 GS or PHY131 GS] or [TDH] | S1 | 2 | 1 | 16 |
| FLG212 | CIRCULATORY_PHYSIOLOGY_212 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] and [PHY171 GS or PHY131 GS] or [TDH] | S1 | 2 | 1 | 16 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/14 | 4.5/4.5 | 46/46 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| FLG221 | LUNG/RENAL/ACID-BASE/TEMP._221 Prerequisite/s: [FLG211] and [FLG212] | S2 | 2 | 1 | 16 |
| FLG222 | DIGEST.ENDOCR.&_REPROD/SYS222 Prerequisite/s: [FLG211] and [FLG212] or [TDH] | S2 | 2 | 1 | 16 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 10/10 | 3.5/3.5 | 34/34 |

| |
|---|
| **Compulsory credits = (148) Elective credits = (0)** |

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM351 | BIOCHEMISTRY_OF_PROTEINS_351 Prerequisite/s: [BCM251] | K1 | 2 | 1 | 9 |
| BCM354 | BIOCHEM._OF_NUCLEIC_ACIDS_354 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] | S1 | 1 | 0.5 | 9 |
| BCM355 | IMMUNOBIOLOGY_355 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] | S1 | 1 | 0.5 | 9 |
| GTS351 | EUKARYOTIC_GENE_CON.&_DEVL.351 Prerequisite/s: [GTS251GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| GTS352 | GENOMES_352 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| GTS353 | ADV._POPULATION_GENETICS_353 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 10/8 | 5/4 | 45/36 |

Electives to be chosen from the following list of third-year subjects: BCM352, BCM365, BCM366, BCM364, FAR305, MBY351, MBY353, MBY364, MBY363.

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GTS361 | HUMAN_GENETICS_361 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S2 | 2 | 1 | 18 |

| GTS363 | EVOLUTIO._&_PHYLO-GENETICS_363 Prerequisite/s: [GTS353 GS] or [TDH] | S2 | 2 | 1 | 18 |
|---|---|---|---|---|---|
| | Totals for compulsory modules in the third/fourth quarter | | 4/4 | 2/2 | 18/18 |
| | **Compulsory credits = (117) Elective credits = (36)** | | | | |
| **A minimum of (453) credits is required to obtain the degree.** | | | | | |

| Field of study | Dept | Code |
|---|---|---|
| **BSc Human Physiology** | **FLG** | **03134021** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

Students who are going to apply for the 20-30 MBChD, or the 2-3 BChD places, that become available in the second quarter, may enroll for FIL155, MGW112 and MTL181 instead of WTW134 under the condition that, should they not be selected and want to continue with BSc, WTW158 or WTW134 be taken in the second semester.

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/14 | 2.5/2.5 | 26/26 |

Electives can be chosen from ANA121, ANA126, MBY161 or WTW152. Students who did not take WTW134 in the first semester are reminded to enroll for it in the second semester.

| **Compulsory credits = (128) Elective credits = (24)** |
|---|

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] | S1 | 2 | 0.5 | 12 |

| | and [CMY127 GS] and [MLB111 GS] | | | | |
|---|---|---|---|---|---|
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| FLG211 | INTRODUCTORY_&_NEUROPHYS.211 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] and [PHY171 GS or PHY131 GS] or [TDH] | S1 | 2 | 1 | 16 |
| FLG212 | CIRCULATORY_PHYSIOLOGY_212 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] and [PHY171 GS or PHY131 GS] or [TDH] | S1 | 2 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 3/3 | 28/28 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| FLG221 | LUNG/RENAL/ACID-BASE/TEMP._221 Prerequisite/s: [FLG211] and [FLG212] | S2 | 2 | 1 | 16 |
| FLG222 | DIGEST.ENDOCR.&_REPROD/SYS222 Prerequisite/s: [FLG211] and [FLG212] or [TDH] | S2 | 2 | 1 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 3/3 | 28/28 |

Electives can be chosen from Genetics, Microbiology, Botany or Zoology.

**Compulsory credits = (112) Elective credits = (24)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ANA316 | HISTOLOGY_TECHNIQUES_316 | S1 | 2 | 2 | 15 |
| FLG311 | APPL.CELLULAR_PHYSIOLOGY_311 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S1 | 1 | 1 | 14 |
| FLG312 | DEVELOPMENTAL_PHYSIOLOGY_312 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S1 | 2 | 0 | 14 |
| FLG313 | RESEARCH_METH.&_LIT.STUDY_313 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S1 | 1 | 1 | 14 |
| FLG314 | IMMUNOLOGY_314 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S1 | 1 | 0 | 9 |
| | Totals for compulsory modules in the first/second quarter | | 7/7 | 4/4 | 33/33 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| FLG322 | INDUSTRIAL_PHYSIOLOGY_322 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S2 | 1 | 1 | 14 |
| FLG323 | PHYSIOL.CONTR.SYST.&_MODELL323 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S2 | 0 | 1 | 9 |

| FLG324 | EXERCISE_PHYSIOLOGY_324 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S2 | 1 | 1 | 9 |
|--------|------|----|----|----|----|
| FLG325 | NUTRITION_PHYSIOLOGY_325 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S2 | 1 | 0 | 9 |
| FLG328 | PATHOPHYSIOLOGY_328 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S2 | 1 | 0 | 9 |
| Totals for compulsory modules in the third/fourth quarter | | | 4/4 | 3/3 | 25/25 |

Electives can be chosen from Genetics 351 and 361 and 352, or Biochemistry 352 and 365 and 362 or Microbiology, or Pharmacology 305 or Botany or Zoology

**Compulsory credits = (116) Elective credits = (28)**

**A minimum of (432) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| BSc Human Physiology, Genetics and Psychology | FLG | 02133392 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| SLK151 | PSYCHOLOGICAL_PERSPECTIVES_151 | K1 | 2 | 0 | 6 |
| SLK152 | COGNITIVE_PROCESSES_152 | K2 | 2 | 0 | 6 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 22/22 | 4/4 | 44/44 |

Students who are going to apply for the 20-30 MBChD, or the 2-3 BChD places, that become available in the second quarter, may enroll for FIL155, MGW112 and MTL181 instead of WTW134 under the condition that, should they not be selected and want to continue with BSc, WTW158 or WTW134 be taken in the second semester.

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| SLK154 | HEALTH_PSYCHOLOGY_154 | K3 | 2 | 0 | 6 |

| | | | | | |
|---|---|---|---|---|---|
| Totals for compulsory modules in the third/fourth quarter | | | 12/10 | 1.5/1.5 | 24/18 |

At least one of SLK155 or SLK156 is compulsory. Electives can be chosen from ANA121, BME120 or WTW152. Students who did not take WTW134 in the first semester are reminded to enroll for it in the second semester.

| | |
|---|---|
| **Compulsory credits = (130) Elective credits = (22)** | |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| FLG211 | INTRODUCTORY_&_NEUROPHYS.211 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] and [PHY171 GS or PHY131 GS] or [TDH] | S1 | 2 | 1 | 16 |
| FLG212 | CIRCULATORY_PHYSIOLOGY_212 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] and [PHY171 GS or PHY131 GS] or [TDH] | S1 | 2 | 1 | 16 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| SLK251 | PERSONOLOGY_251 Prerequisite/s: [SLK151] and [SLK152] | K1 | 2 | 0 | 10 |
| SLK253 | DEVELOPMENT_PSYCHOLOGY_253 | K2 | 2 | 0 | 10 |
| Totals for compulsory modules in the first/second quarter | | | 12/12 | 3.5/3.5 | 44/44 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| FLG221 | LUNG/RENAL/ACID-BASE/TEMP._221 Prerequisite/s: [FLG211] and [FLG212] | S2 | 2 | 1 | 16 |
| FLG222 | DIGEST.ENDOCR.&_REPROD/SYS222 Prerequisite/s: [FLG211] and [FLG212] or [TDH] | S2 | 2 | 1 | 16 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| SLK254 | SOCIAL_PSYCHOLOGY_254 | K3 | 2 | 0 | 10 |
| SLK256 | PSYCHOLOGICAL_ASSESSMENT(1)256 | K4 | 2 | 0 | 10 |
| Totals for compulsory modules in the third/fourth quarter | | | 12/12 | 3.5/3.5 | 44/44 |
| **Compulsory credits = (176) Elective credits = (0)** | | | | | |

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| FLG313 | RESEARCH_METH.&_LIT.STUDY_313 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S1 | 1 | 1 | 14 |
| FLG314 | IMMUNOLOGY_314 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S1 | 1 | 0 | 9 |
| GTS351 | EUKARYOTIC_GENE_CON.&_DEVL.351 Prerequisite/s: [GTS251 | S1 | 2 | 1 | 18 |

| | | | | | |
|---|---|---|---|---|---|
| | GS] and [GTS261 GS] or [TDH] | | | | |
| SLK351 | COMMUNITY_PSYCHOLOGY_351 | K1 | 2 | 0 | 15 |
| SLK352 | ABNORMAL_BEHAVIOUR_352 Prerequisite/s: [SLK251] and [SLK253] | K2 | 2 | 0 | 15 |
| | Totals for compulsory modules in the first/second quarter | 6/6 | 2/2 | 35.5/35.5 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| FLG325 | NUTRITION_PHYSIOLOGY_325 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S2 | 1 | 0 | 9 |
| FLG327 | HIGHER_NEUROLOGICAL_FUNCT.327 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S2 | 0 | 2 | 20 |
| FLG328 | PATHOPHYSIOLOGY_328 Prerequisite/s: [BCM251 GS] and [BCM252 GS] and [BCM261 GS] and [BCM262 GS] and [FLG221] and [FLG222] | S2 | 1 | 0 | 9 |
| GTS361 | HUMAN_GENETICS_361 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S2 | 2 | 1 | 18 |
| SLK353 | CRITICAL_PERSPECTIVES_353 Prerequisite/s: [SLK251] | K4 | 2 | 0 | 15 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/6 | 3/3 | 28/43 |

At least one of SLK 354 or SLK 355 is compulsory. GTS 352 is compulsory for an honours degree in Genetics. Pharmacology 305 can also be taken as an elective module.

**Compulsory credits = (142) Elective credits = (15)**
**A minimum of (485) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Information Technology (Computer Science)** | **COS** | **02133231** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| COS110 | PROGRAM_DESIGN:INTRODUCTION Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| COS151 | COMPUTER_SCIENCE_151 | S1 | 2 | 1 | 8 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW115 | DISCRETE_STRUCTURES_115 Prerequisite/s: [Par 1.2] | S1 | 2 | 1 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 4/4 | 30/30 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| COS283 | SYSTEMS_INTEGRATION_283 Prerequisite/s: [COS110GS] or [TDH] | S2 | 2 | 1 | 12 |
| COS284 | COMPUTER_ARCHITECTURE_284 Prerequisite/s: [COS110] or | S2 | 2 | 1 | 12 |

| | | | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| | [TDH] | | | | |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/12 | 4/4 | 26/26 |

Electives can be chosen from: Mathematics, Mathematical Statistics, Physics, Chemistry, Geography, Geology, Financial Accounting, Informatics 153/4, 163/4, 253, 263, Business Management, Economics, Psychology, INL111, INL221 and INY224.

**Compulsory credits = (112) Elective credits = (40)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| COS284 | COMPUTER_ARCHITECTURE_284 Prerequisite/s: [COS110] or [TDH] | S1 | 2 | 1 | 12 |
| COS222 | OPERATING_SYSTEMS_222 Prerequisite/s: [COS110] or [TDH] | S1 | 2 | 1 | 12 |
| WTW218 | CALCULUS_218 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S1 | 2 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 6/6 | 3/3 | 18/18 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| COS213 | ADVANCED_PROGRAMMING_213 Prerequisite/s: [COS212] or [TDH] | S2 | 2 | 1 | 12 |
| COS221 | DATA_BASES_221 Prerequisite/s: [COS110] or [TDH] | S2 | 2 | 1 | 12 |
| WTW285 | DISCRETE_STRUCTURES_285 Prerequisite/s: [WTW115] | S2 | 2 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 6/6 | 3/3 | 18/18 |

Electives can be chosen from: Mathematics, Mathematical Statistics, Physics, Chemistry, Geography, Geology, Financial Accounting, Informatics 153/4, 163/4, 253, 263, Business Management, Economics, Psychology, INL111, INL221 and INY224.

**Compulsory credits = (72) Elective credits = (72)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| COS301 | SOFTWARE_ENGINEERING_301 Prerequisite/s: [ Par 2.2] | J1 | 1 | 1 | 9 |
| | Totals for compulsory modules in the first/second quarter | | 1/1 | 1/1 | 4.5/4.5 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| COS301 | SOFTWARE_ENGINEERING_301 Prerequisite/s: [Par 2.2] | J1 | 1 | 1 | 9 |
| WTW385 | DISCRETE_STRUCTURES_385 Prerequisite/s: [WTW126 or WTW102] and [WTW218] and [WTW285] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 3/3 | 2/2 | 13.5/13.5 |

In addition to COS301, at least four other third-year level COS modules must be included.

### Compulsory credits = (36) Elective credits = (108)

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Information Technology (Computer Systems)** | **COS** | **02133221** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| COS110 | PROGRAM_DESIGN:INTRODUCTION Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| COS151 | COMPUTER_SCIENCE_151 | S1 | 2 | 1 | 8 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW115 | DISCRETE_STRUCTURES_115 Prerequisite/s: [Par 1.2] | S1 | 2 | 1 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 4/4 | 30/30 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| COS283 | SYSTEMS_INTEGRATION_283 Prerequisite/s: [COS110GS] or [TDH] | S2 | 2 | 1 | 12 |
| COS284 | COMPUTER_ARCHITECTURE_284 Prerequisite/s: [COS110] or [TDH] | S2 | 2 | 1 | 12 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 2/2 | 18/18 |

Electives can be chosen from: Mathematics, Mathematical Statistics, Physics, Chemistry, Geography, Geology, Financial Accounting, Informatics 153/4, 163/4, 253, 263, Business Management, Economics, Psychology, INL111, INL221 and INY224.

### Compulsory credits = (96) Elective credits = (56)

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| COS284 | COMPUTER_ARCHITECTURE_284 Prerequisite/s: [COS110] or [TDH] | S1 | 2 | 1 | 12 |
| COS222 | OPERATING_SYSTEMS_222 Prerequisite/s: [COS110] or [TDH] | S1 | 2 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 2/2 | 12/12 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| COS213 | ADVANCED_PROGRAMMING_213 Prerequisite/s: [COS212] or [TDH] | S2 | 2 | 1 | 12 |
| COS221 | DATA_BASES_221 Prerequisite/s: [COS110] or [TDH] | S2 | 2 | 1 | 12 |
| COS289 | INTROD.TO_DIGITAL_SYSTEMS_289 Prerequisite/s: [COS110] and [WTW115] | S2 | 2 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 6/6 | 3/3 | 18/18 |

Electives can be chosen from: Mathematics, Mathematical Statistics, Physics, Chemistry, Geography, Geology, Financial Accounting, Informatics 153/4, 163/4, 253, 263, Business Management, Economics, Psychology, INL111, INL221 and INY224.

**Compulsory credits = (60) Elective credits = (84)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| COS301 | SOFTWARE_ENGINEERING_301 Prerequisite/s: [Par 2.2] | J1 | 1 | 1 | 9 |
| | Totals for compulsory modules in the first/second quarter | | 1/1 | 1/1 | 4.5/4.5 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| COS301 | SOFTWARE_ENGINEERING_301 Prerequisite/s: [Par 2.2] | J1 | 1 | 1 | 9 |
| COS389 | MICROPROCESSOR_SYSTEMS_389 Prerequisite/s: [COS289 and Par 2.2 or TDH] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 3/3 | 2/2 | 13.5/13.5 |

In addition to COS301, at least four other third-year level COS modules must be included.

**Compulsory credits = (36) Elective credits = (108)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Information Technology (Information and Knowledge Systems)** | **COS** | **02133211** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| COS110 | PROGRAM_DESIGN:INTRODUCTION Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| COS151 | COMPUTER_SCIENCE_151 | S1 | 2 | 1 | 8 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| INF153 | INFORMATICS_153 Prerequisite/s: [Par 1.2] | S1 | 2 | 0 | 5 |
| INF154 | INFORMATICS_154 Prerequisite/s: [Par 1.2] | S1 | 1 | 2 | 5 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 17/17 | 5/5 | 31/31 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |

| COS283 | SYSTEMS_INTEGRATION_283 Prerequisite/s: [COS110GS] or [TDH] | S2 | 2 | 1 | 12 |
| COS284 | COMPUTER_ARCHITECTURE_284 Prerequisite/s: [COS110] or [TDH] | S2 | 2 | 1 | 12 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| INF163 | INFORMATICS_163 Prerequisite/s: [INF153 GS] | S2 | 2 | 0 | 5 |
| INF164 | INFORMATICS_164 Prerequisite/s: [INF154 GS] | S2 | 1 | 2 | 5 |
| | Totals for compulsory modules in the third/fourth quarter | | 11/11 | 4/4 | 23/23 |

Electives can be chosen from: Mathematics, Mathematical Statistics, Physics, Chemistry, Geography, Geology, Financial Accounting, Informatics 153/4, 163/4, 253, 263, Business Management, Economics, Psychology, INL111, INL221 and INY224.

**Compulsory credits = (108) Elective credits = (44)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| COS284 | COMPUTER_ARCHITECTURE_284 Prerequisite/s: [COS110 ] or [TDH] | S1 | 2 | 1 | 12 |
| COS222 | OPERATING_SYSTEMS_222 Prerequisite/s: [COS110] or [TDH] | S1 | 2 | 1 | 12 |
| INF253 | INFORMATICS_253 | S1 | 2 | 3 | 9 |
| | Totals for compulsory modules in the first/second quarter | | 6/6 | 5/5 | 16.5/16.5 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| COS213 | ADVANCED_PROGRAMMING_213 Prerequisite/s: [COS212] or [TDH] | S2 | 2 | 1 | 12 |
| COS221 | DATA_BASES_221 Prerequisite/s: [COS110] or [TDH] | S2 | 2 | 1 | 12 |
| INF263 | INFORMATICS_263 | S2 | 2 | 3 | 9 |
| | Totals for compulsory modules in the third/fourth quarter | | 6/6 | 5/5 | 16.5/16.5 |

Electives can be chosen from: Mathematics, Mathematical Statistics, Physics, Chemistry, Geography, Geology, Financial Accounting, Informatics 153/4, 163/4, 253, 263, Business Management, Economics, Psychology, INL111, INL221 and INY224.

**Compulsory credits = (66) Elective credits = (78)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| COS301 | SOFTWARE_ENGINEERING_301 Prerequisite/s: [Par 2.2] | J1 | 1 | 1 | 9 |
| | Totals for compulsory modules in the first/second quarter | | 1/1 | 1/1 | 4.5/4.5 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| COS301 | SOFTWARE_ENGINEERING_301 Prerequisite/s: [Par 2.2] | J1 | 1 | 1 | 9 |
| | Totals for compulsory modules in the third/fourth quarter | | 1/1 | 1/1 | 4.5/4.5 |

In addition to COS301, at least four other third-year level COS modules must be included.

| Compulsory credits = (18) Elective credits = (126) |
|---|

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| BSc Mathematical Statistics | WST | 02133273 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| WST110 | MATHEMATICAL_STATISTICS_110 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 12/10 | 2/2 | 22/19 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| WST120 | MATHEMATICAL_STATISTICS_120 Prerequisite/s: [WST110 GS] | S2 | 4 | 1 | 16 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 10/12 | 3/3 | 19/22 |

Students in Mathematical Statistics who also want to be trained for the Insurance Industry, Econometrics or Banking, normally choose:

EKN133, 123(30)   or   EKN110, 120, 171(25)
FBS110, 120(20)   or   FRK151, 152, 121, 181(25)
COS160(16)      or   COS110(16)

Other students choose modules from any other subject/faculty according to their own specific requirements.

| Compulsory credits = (82) Elective credits = (70) |
|---|

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WST210 | MATHEMATICAL_STATISTICS_210 Prerequisite/s: [WST110] and [WST120] and [WTW114 GS or WTW101 GS] and [WTW126 GS or WTW102 GS] and [WTW128 GS or WTW102 GS] | S1 | 4 | 2 | 24 |
| WTW211 | LINEAR_ALGEBRA_211 Prerequisite/s: [WTW126 or WTW102] | S1 | 2 | 1 | 12 |
| WTW218 | CALCULUS_218 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S1 | 2 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 4/4 | 24/24 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WST220 | MATHEMATICAL_STATISTICS_220 Prerequisite/s: [WST210 GS] | S2 | 4 | 2 | 24 |

| WTW220 | ANALYSIS_220 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S2 | 2 | 1 | 12 |
|--------|----------------------------------------------------------------------|----|---|---|-----|
| WTW221 | LINEAR_ALGEBRA_221 Prerequisite/s: [WTW211] | S2 | 2 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 4/4 | 24/24 |

Insurance Industry students normally choose: IAS211, 221, 261 en 262(48); Econometrics students normally choose: EKN251, 252, 220 and STK281(50); Other students choose modules from any other subject/faculty according to their own specific requirements.

**Compulsory credits = (96) Elective credits = (48)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| WST310 | MATHEMATICAL_STATISTICS_310 Prerequisite/s: [WST210] and [WST220] and [WTW211 GS] and [WTW218 GS] | S1 | 4 | 2 | 36 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 2/2 | 18/18 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| WST361 | MATHEMATICAL_STATISTICS_361 Prerequisite/s: [WST210] and [WST220] and [WTW211 GS] and [WTW218 GS] | S2 | 2 | 1 | 18 |
| WST362 | MATHEMATICAL_STATISTICS_362 Prerequisite/s: [WST210] and [WST220] and [WTW211 GS] and [WTW218 GS] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/4 | 2/2 | 18/18 |

Insurance Industry students normally choose: IAS351, 352, 361 en 362(72); Econometrics students normally choose: EKN310, 320 and 363(60); Other students choose modules from any other subject/faculty according to their own specific requirements.
Important: Elective modules must be selected in order to comply with the required minimum credits per level, provided there are no clashes on the class, test and examination time tables.

**Compulsory credits = (72) Elective credits = (72)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BSc Mathematics** | **WTW** | **02133262** |

| **First year, first semester:** | | | | | |
|------|------|-----|-----|-----|------|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| WST110 | MATHEMATICAL_STATISTICS_110 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW115 | DISCRETE_STRUCTURES_115 Prerequisite/s: [Par 1.2] | S1 | 2 | 1 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 14/12 | 3/3 | 26/23 |

| **First year, second semester:** | | | | | |
|------|------|-----|-----|-----|------|
| Code | Name | Qrt | lpw | ppw | Crdt |

| | | | | | |
|---|---|---|---|---|---|
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| WST120 | MATHEMATICAL_STATISTICS_120 Prerequisite/s: [WST110 GS] | S2 | 4 | 1 | 16 |
| WTW123 | NUMERICAL_ANALYSIS_123 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/14 | 4/4 | 23/26 |

**Compulsory credits = (98) Elective credits = (54)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WTW211 | LINEAR_ALGEBRA_211 Prerequisite/s: [WTW126 or WTW102] | S1 | 2 | 1 | 12 |
| WTW218 | CALCULUS_218 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S1 | 2 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 2/2 | 12/12 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WTW220 | ANALYSIS_220 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S2 | 2 | 1 | 12 |
| WTW221 | LINEAR_ALGEBRA_221 Prerequisite/s: [WTW211] | S2 | 2 | 1 | 12 |
| WTW286 | DIFFERENTIAL_EQUATIONS_286 Prerequisite/s: [WTW114 or WTW101] and [WTW126 or WTW102] and [WTW128 or WTW102] | S2 | 2 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 6/6 | 3/3 | 18/18 |

**Compulsory credits = (60) Elective credits = (84)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WTW310 | ANALYSIS_310 Prerequisite/s: [WTW220] | S1 | 2 | 1 | 18 |
| WTW381 | ALGEBRA_381 Prerequisite/s: [WTW114 or WTW101] and [WTW211] | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 2/2 | 18/18 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WTW386 | PARTIAL_DIFF_EQUATIONS_386 Prerequisite/s: [WTW218] and [WTW286] | S2 | 2 | 1 | 18 |
| WTW389 | GEOMETRY_389 Prerequisite/s: [WTW211] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/4 | 2/2 | 18/18 |

A minimum of 138 credits at 100 to 300 level can be chosen from any WTW, IAS, PHY, COS, WST or FIL modules. The remainder of the electives at 100 to 300 level can be chosen from any other modules in the syllabi of this faculty.

**Compulsory credits = (72) Elective credits = (72)**
**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|

| BSc Meteorology | GLY | 02133312 |
|---|---|---|

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| PHY171 | FIRST_MODULE_IN_PHYSICS_171 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 16 |
| WKD151 | ATMOSPHERIC_PROCESSES_151 | K1 | 4 | 0.6 | 8 |
| WKD152 | ATMOSPHERIC_CIRC.&_CLIMATE_152 | K2 | 4 | 0.6 | 8 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 2.6/2.6 | 30/30 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| PHY171 | FIRST_MODULE_IN_PHYSICS_171 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 16 |
| WKD161 | PHYSICAL_&_MESOSCALE_METEO.161 | K3 | 4 | 0.6 | 8 |
| WKD162 | DYNAM.&_NUMER._METEOROLOGY_162 | K4 | 4 | 0.6 | 8 |
| WKD163 | WEATHER_FORECASTING_PRIN._163 | K4 | 4 | 0 | 8 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 16/20 | 3.6/3.6 | 30/38 |
| | **Compulsory credits = (128) Elective credits = (24)** | | | | |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WKD250 | WEATHER_FORECASTING_250 | S1 | 5 | 0 | 24 |
| WKD253 | COMMUNITY_PROJECT_253 | S1 | 3 | 0 | 12 |
| WTW218 | CALCULUS_218 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S1 | 2 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 10/10 | 1/1 | 24/24 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WKD261 | PHYSICAL_METEOROLOGY_261 | K3 | 4 | 0 | 12 |
| WKD262 | CLIMATE_DATA_MANIPULATION_262 | K4 | 1 | 0 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/1 | 0/0 | 12/12 |

| **Compulsory credits = (72) Elective credits = (72)** |
|---|

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| WKD351 | ATMOSPHERIC_BALANCE_LAWS_351 | K1 | 4 | 0.6 | 18 |
| WKD352 | ATMOSP._VORTIC._&DIVERGENC.352 | K2 | 4 | 0.6 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 0.6/0.6 | 18/18 |

| Third year, second semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| WKD360 | RESEARCH_PROJECT_360 | S2 | 5 | 2 | 36 |
| WKD361 | QUASI-GEOSTROPHIC_ANALYSIS_361 | K3 | 4 | 0 | 18 |
| WKD362 | CLOUD_&_BOUNDARY_LAYER_DYN.362 | K4 | 4 | 0 | 18 |
| Totals for compulsory modules in the third/fourth quarter | | | 9/9 | 2/2 | 36/36 |

Electives for the first to third year can be chosen from modules in the following departments: Geography, Geoinformatics and Meteorology, Geology, Plant Production and Soil Science, Chemistry, Botany, Mathematics and Applied Mathematics, Physics, Computer Science.

**Compulsory credits = (108) Elective credits = (36)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Microbiology** | **MBY** | **03133071** |

| First year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 4/4 | 38/38 |
| First year, second semester: | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 22/18 | 5/4 | 42/34 |

| Compulsory credits = (152) Elective credits = (0) | | | | | |
|---|---|---|---|---|---|

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BOT251 | SA_FLORA_&_VEGETATION_251 Prerequisite/s: [BOT161] or [TDH] | S1 | 2 | 1 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| ZEN251 | INVERTEBRATE_BIOLOGY_251 | K1 | 4 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/10 | 4.5/3.5 | 42/30 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| ZEN261 | AFRICAN_VERTEBRATES_261 | K3 | 4 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/10 | 4.5/3.5 | 42/30 |

| Compulsory credits = (144) Elective credits = (0) | | | | | |
|---|---|---|---|---|---|

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| MBY351 | STRUCT.&_DIVERS.OF_VIRUSES_351 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S1 | 2 | 1 | 18 |
| MBY352 | ENVIRONMENTAL_MICROBIOLOGY_352 Prerequisite/s: [MBY161] | S1 | 2 | 1 | 18 |
| MBY353 | VERTIBRATE-MICROBE_INTERAC.353 | S1 | 2 | 1 | 18 |
| PLG351 | GENERAL_PLANTPATHOLOGY_351 | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 4/4 | 36/36 |

PLG351 may be replaced by GTS352 or BCM351 and BCM355.

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| MBY361 | INDUSTRIAL_MICROBIOLOGY_361 Prerequisite/s: [BCM251] and [MBY251] | S2 | 2 | 1 | 18 |
| MBY362 | FOOD_MICROBIOLOGY_362 Prerequisite/s: [MBY251] | S2 | 2 | 1 | 18 |
| MBY363 | MOLEC._BIOL.OF_PROKARYOTES_363 Prerequisite/s: [BCM251] | S2 | 2 | 1 | 18 |

| | | | | | |
|---|---|---|---|---|---|
| | and [CMY127] and [MBY161] | | | | |
| MBY364 | GENE.MANIPULATION/MICROBES.364 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 4/4 | 36/36 |

MBY361 may be replaced with PLG364.

<br>

**Compulsory credits = (144) Elective credits = (18)**

<br>

**A minimum of (458) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Nutrition and Food Science** | **VDW** | **03134012** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| FSG110 | PHYSIOLOGY_110 | S1 | 3 | 0 | 6 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 23/23 | 4/4 | 41/41 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| FSG120 | PHYSIOLOGY_120 Prerequisite/s: [FSG110 GS] | S2 | 3 | 0 | 6 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 19/19 | 3.5/3.5 | 33/33 |

<br>

**Compulsory credits = (148) Elective credits = (0)**

<br>

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| FST250 | INTRO/FOOD_SCIENCE_&_TECH._250 Prerequisite/s: [CMY117] and [CMY127] and [MBY161] and [PHY131] and [WTW134] or [TDH] | S1 | 2 | 1 | 12 |
| VDG250 | NUTRITION_250 Prerequisite/s: [CMY127] | S1 | 3 | 0.5 | 12 |
| VDG310 | NUTRITION_310 Prerequisite/s: [FSG110 or VDG220] and [FSG120 or VDG163] | S1 | 3 | 1 | 14 |
| VDS210 | FOODS_210 | S1 | 3 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 15/15 | 4.5/4.5 | 39/39 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| FST260 | PRIN/FOOD_PROC._&_PRESERV._260 Prerequisite/s: [CMY117] and [CMY127] and [MBY161] and [PHY131] and [WTW134] or [TDH] | S2 | 2 | 1 | 12 |
| KEP220 | CULTURAL_EATING_PATTERNS_220 | S2 | 3 | 0 | 8 |
| VDG320 | NUTRITION_320 Prerequisite/s: [VDG310] | S2 | 3 | 1 | 14 |
| VDS221 | FOODS_221 Prerequisite/s: [VDS210] | S2 | 3 | 1 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 15/15 | 4/4 | 37/37 |

**Compulsory credits = (152) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| FST351 | FOOD_CHEMISTRY-(1)_351 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] or [TDH] | S1 | 2 | 1 | 18 |
| FST352 | FOOD_CHEMISTRY-(2)_352 Prerequisite/s: [FST351] | S1 | 2 | 1 | 18 |
| VDS310 | FOODS_310 Prerequisite/s: [VDS210] and [VDS221] | S1 | 3 | 1 | 16 |
| VVW350 | FOOD_AND_HEALTH_350 | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 10/10 | 4/4 | 35/35 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| MBY362 | FOOD_MICROBIOLOGY_362 Prerequisite/s: [MBY251] | S2 | 2 | 1 | 18 |
| VVW361 | LEGIS&LABEL/ANI&HUMAN_FOOD_361 | S2 | 2 | 1 | 18 |
| VVW362 | COMMUNICATION_IN_NUTRITION_362 | S2 | 2 | 1 | 18 |
| VVW363 | COM.NUTRITION_&PUBL.HEALTH_363 | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 4/4 | 36/36 |

**Compulsory credits = (142) Elective credits = (20)**

**A minimum of (462) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BSc Physics** | **PHY** | **02133202** |

| First year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| PHY171 | FIRST_MODULE_IN_PHYSICS_171 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 16 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 12/12 | 2/2 | 22/22 |

| First year, second semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| PHY171 | FIRST_MODULE_IN_PHYSICS_171 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 16 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/12 | 3/3 | 22/22 |

CMY117,127 and PHY161 are recommended. Additional electives can be chosen from: SCI154, COS110, WTW115, WKD151,152,161,162, GLY151,152,161,162, GGY151,152,161,162 & STK151,152,161,162.

**Compulsory credits = (88) Elective credits = (64)**

| Second year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| PHY251 | GENERAL_PHYSICS_251 Prerequisite/s: [PHY171 or PHY101,102] and [WTW211 #] and [WTW218 #] | K1 | 4 | 2 | 12 |
| PHY252 | MODERN_PHYSICS_252 Prerequisite/s: [PHY171 or PHY101,102] and [PHY251 #] and [WTW211 #] and [WTW218 #] | K2 | 4 | 2 | 12 |
| WTW211 | LINEAR_ALGEBRA_211 Prerequisite/s: [WTW126 or WTW102] | S1 | 2 | 1 | 12 |
| WTW218 | CALCULUS_218 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S1 | 2 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 4/4 | 24/24 |

| Second year, second semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| PHY261 | CLASSICAL_PHYSICS_261 Prerequisite/s: [PHY251 GS] and [PHY252 GS] and [WTW211 GS] and [WTW218 GS] and [WTW220 #] and [WTW221 #] | K3 | 4 | 2 | 12 |
| PHY262 | PHYS_OF_MATER.&RENEW.ENER_262 Prerequisite/s: [PHY251 GS] and [PHY252 GS] and [PHY261 #] and [WTW211 GS] and [WTW218 GS] and [WTW220 #] and [WTW221 #] | K4 | 4 | 2 | 12 |
| WTW220 | ANALYSIS_220 Prerequisite/s: [WTW114 or WTW101] and [WTW128 or WTW102] | S2 | 2 | 1 | 12 |
| WTW221 | LINEAR_ALGEBRA_221 Prerequisite/s: [WTW211] | S2 | 2 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 4/4 | 24/24 |

Additional electives can be chosen from Mathematics, Meteorology, Geology, Geology and Statistics.

| Compulsory credits = (96) Elective credits = (48) | | | | | |
|---|---|---|---|---|---|

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| PHY351 | QUANTUM_MECH_&_MODELLING_351 Prerequisite/s: [PHY251 #] and [PHY252 #] and [PHY261 GS] and [PHY262 GS] and [WTW220 GS] and [WTW221 GS] | K1 | 4 | 2 | 18 |
| PHY352 | SOLID_STATE_PHYS.&_OPTICS_352 Prerequisite/s: [PHY251 #] and [PHY252 #] and [PHY262 GS] and [PHY351 #] and [WTW220 GS] and [WTW221 GS] | K2 | 4 | 2 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 2/2 | 18/18 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| PHY361 | ELECTROMAGNET_&_ELECTRONIC_361 Prerequisite/s: [PHY251] and [PHY252] | K3 | 4 | 2 | 18 |
| PHY362 | STATISTICAL_PHYSICS_362 Prerequisite/s: [PHY251] and [PHY252] and [PHY261 #] and [PHY262 #] and [PHY351 GS] and [PHY352 GS] and [PHY361 GS] and [WTW220 #] and [WTW221 #] | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/4 | 2/2 | 18/18 |
| The following electives are recommended: WTW310,352,381,383,384,385,389. | | | | | |
| **Compulsory credits = (72) Elective credits = (72)** | | | | | |
| | | | | | |
| **A minimum of (440) credits is required to obtain the degree.** | | | | | |

| Field of study | Dept | Code |
|---|---|---|
| **BSc Plant Pathology** | **MBY** | **03134001** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |

| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
|--------|------------------------------|-----|-----|-----|-----|
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BOT251 | SA_FLORA_&_VEGETATION_251 Prerequisite/s: [BOT161] or [TDH] | S1 | 2 | 1 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| ZEN251 | INVERTEBRATE_BIOLOGY_251 | K1 | 4 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/10 | 4.5/3.5 | 42/30 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127 ] or [TDH] | S2 | 2 | 1 | 12 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| GTS362 | INTRODUCTION_TO_PLANTBREED.362 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S2 | 2 | 1 | 18 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/12 | 4.5/4.5 | 39/39 |

ZEN261 may be selected instead of GTS362

**Compulsory credits = (150) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT352 | PLANT_STRUCTURE_&_FUNCTION_352 Prerequisite/s: [BOT161] or [TDH] and [CMY117] or [TDH] and [CMY127] or [TDH] | S1 | 2 | 1 | 18 |
| MBY351 | STRUCT.&_DIVERS.OF_VIRUSES_351 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S1 | 2 | 1 | 18 |

| | | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| MBY352 | ENVIRONMENTAL_MICROBIOLOGY_352 Prerequisite/s: [MBY161] | S1 | 2 | 1 | 18 |
| PLG351 | GENERAL_PLANTPATHOLOGY_351 | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 4/4 | 36/36 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| MBY363 | MOLEC._BIOL.OF_PROKARYOTES_363 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S2 | 2 | 1 | 18 |
| MBY364 | GENE.MANIPULATION/MICROBES.364 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S2 | 2 | 1 | 18 |
| PLG363 | PLANT_DISEASE_CONTROL_363 | S2 | 2 | 1 | 18 |
| PLG364 | HOST_PATHOGEN_INTERACTIONS_364 | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 4/4 | 36/36 |

**Compulsory credits = (144) Elective credits = (0)**

**A minimum of (446) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Soil Science** | **PGW** | **03133061** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 16/16 | 4.5/4.5 | 30/30 |

**Compulsory credits = (136) Elective credits = (16)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CMY282 | PHYSICAL_CHEMISTRY_282 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] and [WTW114 GS or WTW134 GS or WTW158 GS] | K1 | 4 | 1 | 12 |
| CMY284 | ORGANIC_CHEMISTRY_284 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K2 | 4 | 1 | 12 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| GLY151 | INTRODUCTORY_GEOLOGY_151 Prerequisite/s: [Par 1.2] | K1 | 4 | 1 | 8 |
| GLY152 | PHYSICAL_GEOLOGY_152 Prerequisite/s: [Par 1.2] | K2 | 4 | 1 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 11/11 | 3/3 | 26/26 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| CMY283 | ANALYTICAL_CHEMISTRY_283 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K3 | 4 | 1 | 12 |
| CMY285 | INORGANIC_CHEMISTRY_285 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K4 | 4 | 1 | 12 |
| GKD260 | SOIL_FERTIL.&_PLANT_NUTRIT.260 Prerequisite/s: [GKD250 GS] | S2 | 3 | 1 | 12 |
| GLY161 | HISTORICAL_GEOLOGY_161 Prerequisite/s: [Par 1.2] | K3 | 4 | 1 | 8 |
| GLY162 | ENVIRONMENTAL_GEOLOGY_162 Prerequisite/s: [Par 1.2] | K4 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 15/15 | 4/4 | 34/34 |

Electives: Any modules in the Faculty of Natural and Agricultural Sciences after consultation with the heads of department.

**Compulsory credits = (120) Elective credits = (24)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GKD350 | SOIL_CLASSIF.&_SURVEYING_350 Prerequisite/s: [GKD250 GS] | S1 | 2 | 1 | 14 |
| GKD351 | SOIL_PHYSICS_351 Prerequisite/s: [GKD250] | S1 | 1 | 0.5 | 10 |
| GKD370 | SOIL_CHEMISTRY_370 Prerequisite/s: [GKD250] | S1 | 2 | 1 | 14 |
| GKD450 | SOIL_MINERAL._&_SOIL_GENES.450 Prerequisite/s: [GKD250] | S1 | 2 | 1 | 14 |
| | Totals for compulsory modules in the first/second quarter | | 7/7 | 3.5/3.5 | 26/26 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| | Totals for compulsory modules in the third/fourth quarter | | 0/0 | 0/0 | 0/0 |

Electives: Any modules in the Faculty of Natural and Agricultural Sciences after consultation with the heads of department.

**Compulsory credits = (52) Elective credits = (92)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Veterinary Biology** | **GTS** | **03134003** |

**Note:** BSc: Veterinary Biology : Candidates must register for a BSc: Biological Sciences, BSc: Animal Sciences or a degree consisting of the same modules prescribed for the BSc: Veterinary Biology.

**First year, first semester:**

| Code | Name | Qrt | Lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | Lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| VDG250 | NUTRITION_250 Prerequisite/s: [CMY127] | S1 | 3 | 0.5 | 12 |

| VKU210 | ANIMAL_SCIENCE_210 | S1 | 1 | 0.5 | 6 |
|---|---|---|---|---|---|
| | Totals for compulsory modules in the first/second quarter | | 12/12 | 3.5/3.5 | 33/33 |

Electives can be chosen from BOT251 or ZEN251 or DAF250

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| VKU220 | ANIMAL_SCIENCE_220 Prerequisite/s: [VKU210] | S2 | 2 | 0.5 | 12 |
| VKU222 | ANIMAL_SCIENCE_222 | S2 | 2 | 0 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/12 | 3/3 | 33/33 |

A first-round selection process for the degree BSc:Veterinary Biology will take place at the end of the second year of study provided a candidate had passed the prescribed modules. Students not selected at the end of the second year will be able to continue in their third year with any one of a number of different degree options including a three year BSc degree with options in either Animal Sciences, Botany, Biotechnology, Entomology, Genetics, Microbiology, Zoology, or alternatively a BSc(Agric) in Animal Science. However, it may be necessary to register for additional outstanding prescribed modules.

**Compulsory credits = (132) Elective credits = (24)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AHG300 | ANIMAL_HANDLING_300 Prerequisite/s: [Only students selected for BSc(Veterinary Biology)III] | J1 | 1 | 1 | 6 |
| BCM355 | IMMUNOBIOLOGY_355 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] | S1 | 1 | 0.5 | 9 |
| MBY354 | STRUCT.&_DIVERS.OF_VIRUSES_354 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S1 | 2 | 1 | 9 |
| VAP300 | VETERINARY_ANATOMY_AND_PHYSIOLOGY_300 Prerequisite/s: [Only students selected for BSc(Veterinary Biology)III] | J1 | 10 | 2 | 36 |
| WDE250 | PRINCIPLES_OF_VELD_MANAGM._250 | S1 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 5/5 | 34.5/34.5 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AHG300 | ANIMAL_HANDLING_300 Prerequisite/s: [Only students selected for BSc(Veterinary Biology)III] | J1 | 1 | 1 | 6 |
| GTS364 | GENETICS_364 | S2 | 2 | 1 | 9 |
| TLR320 | LIVESTOCK_BREEDING_320 Prerequisite/s: [GTS261] | S2 | 2 | 0.5 | 10 |
| VAP300 | VETERINARY_ANATOMY_AND_PHYSIOLOGY_300 Prerequisite/s: [Only students selected for BSc(Veterinary Biology)III] | J1 | 10 | 2 | 36 |
| VKU361 | ANIMAL_ECOLOGY_361 Prerequisite/s: [VKU210] and [VKU220] | S2 | 2 | 0 | 8 |

| VKU362 | ANIMAL_SCI._BIOTECHNOLOGY_362 Prerequisite/s: [GTS226] | S2 | 1 | 0.5 | 8 |
|---|---|---|---|---|---|
| | Totals for compulsory modules in the third/fourth quarter | | 18/18 | 5/5 | 37/37 |

A final selection of candidates who will be admitted to the BVSc programme will be made at the end of the third year, based on academic merit, an interview and according to available capacity. Students not selected at the end of the third year of study or who do not wish to continue with the BVSc degree, will be able to apply for admission to continue with an honours degree in Anatomy, Physiology or an honours degree in one of the Biological or Agricultural Sciences programmes after completion of a number of specified additional third-year modules in that discipline.

**Compulsory credits = (153) Elective credits = (0)**

**A minimum of (461) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc Zoology** | **ZEN** | **03133021** |

| First year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |
| **First year, second semester:** | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BOT251 | SA_FLORA_&_VEGETATION_251 Prerequisite/s: [BOT161] or [TDH] | S1 | 2 | 1 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| ZEN251 | INVERTEBRATE_BIOLOGY_251 | K1 | 4 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/10 | 4.5/3.5 | 42/30 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
| GLY161 | HISTORICAL_GEOLOGY_161 Prerequisite/s: [Par 1.2] | K3 | 4 | 1 | 8 |
| GLY162 | ENVIRONMENTAL_GEOLOGY_162 Prerequisite/s: [Par 1.2] | K4 | 4 | 1 | 8 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| ZEN261 | AFRICAN_VERTEBRATES_261 | K3 | 4 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/10 | 4.5/3.5 | 38/26 |

**Compulsory credits = (136) Elective credits = (8)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ZEN351 | POPULATION_ECOLOGY_351 | K1 | 4 | 2 | 18 |
| ZEN352 | MAMMALOGY_352 | K1 | 4 | 2 | 18 |
| ZEN353 | COMMUNITY_ECOLOGY_353 | K2 | 4 | 2 | 18 |
| ZEN354 | PHYSIOLOGY_354 | K2 | 4 | 2 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 4/4 | 36/36 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ZEN361 | ECO-PHYSIOLOGY_361 | K3 | 4 | 2 | 18 |
| ZEN362 | EVOLUTION_AND_PHYLOGENY_362 | K3 | 4 | 2 | 18 |
| ZEN363 | BEHAVIORAL_ECOLOGY_363 | K4 | 4 | 2 | 18 |
| ZEN364 | CONSERVATION_ECOLOGY_364 | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 4/4 | 36/36 |

**Compulsory credits = (144) Elective credits = (0)**

**A minimum of (440) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| BSc(Agric) Agricultural Economics/Agribusiness management | LEK | 03130050 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| FRK151 | FINANCIAL_ACCOUNTING_151 Prerequisite/s: [Par.1.2] | K1 | 4 | 0 | 5 |
| FRK152 | FINANCIAL_ACCOUNTING_152 Prerequisite/s: [FRK151 GS] and [Par.1.2] | K2 | 4 | 0 | 5 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 3/3 | 35/35 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| FRK121 | FINANCIAL_ACCOUNTING_121 Prerequisite/s: [FRK151 GS] and [FRK152 GS] | S2 | 4 | 0 | 12 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| LIR421 | AGRICULTURAL_ENGINEERING_421 | S2 | 3 | 2 | 8 |
| WTW144 | MATHEMATICS_144 | S2 | 4 | 1 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 23/23 | 5/5 | 40/40 |

**Compulsory credits = (150) Elective credits = (2)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |

| STK110 | STATISTICS_110 Prerequisite/s: [Reg1.2(j)] | S1 | 3 | 1 | 13 |
|--------|---------------------------------------------|-----|-----|-----|-----|
| VKU210 | ANIMAL_SCIENCE_210 | S1 | 1 | 0.5 | 6 |
| | Totals for compulsory modules in the first/second quarter | | 17/17 | 3.5/3.5 | 38.5/38.5 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| EKN120 | ECONOMICS_120 Prerequisite/s: [EKN110 GS] | S2 | 3 | 0 | 10 |
| HSC261 | TREE_GROWTH_&_DEVELOPMENT_261 Prerequisite/s: [GKD250] and [GKD260 #] and [HSC252] | K3 | 2 | 0.5 | 6 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| LKM262 | AGRICULTURAL_CLIMATOLOGY_262 | S2 | 2 | 0.5 | 12 |
| OBS120 | BUSINESS_MANAGEMENT_120 | S2 | 3 | 0 | 10 |
| STK120 | STATISTICS_120 Prerequisite/s: [STK110 GS] | S2 | 3 | 1 | 13 |
| VKU220 | ANIMAL_SCIENCE_220 Prerequisite/s: [VKU210] | S2 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 18/16 | 2.5/2 | 40.5/34.5 |

**Compulsory credits = (152) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ABR351 | LABOUR_LAW_351 | K1 | 3 | 0 | 10 |
| BER210 | BUSINESS_LAW_210 | S1 | 3 | 0 | 16 |
| EKN251 | ECONOMICS_251 | K1 | 3 | 0 | 8 |
| EKN252 | ECONOMICS_252 | K2 | 3 | 0 | 8 |
| FST250 | INTRO/FOOD_SCIENCE_&_TECH._250 Prerequisite/s: [CMY117] and [CMY127] and [MBY161] and [PHY131] and [WTW134] or [TDH] | S1 | 2 | 1 | 12 |
| LEK310 | AGRICULTURAL_ECONOMICS_310 Prerequisite/s: [LEK251 or EKN110] and [LEK252 or EKN120] | S1 | 3 | 0 | 12 |
| STK210 | STATISTICS_210 Prerequisite/s: [STK110] and [STK120] | S1 | 3 | 1 | 20 |
| | Totals for compulsory modules in the first/second quarter | | 17/14 | 2/2 | 48/38 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| AGV421 | COMMUNICATION_421 | S2 | 2 | 0 | 20 |
| EKN220 | ECONOMICS_220 | S2 | 3 | 0 | 16 |
| LEK320 | AGRICULTURAL_ECONOMICS_320 | S2 | 3 | 2 | 18 |
| STK281 | STATISTICS_281 Prerequisite/s: [STK110] and [STK120] | S2 | 3 | 1 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | 11/11 | 3/3 | 32/32 |

**Compulsory credits = (150) Elective credits = (29)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| EKN310 | ECONOMICS_310 | S1 | 3 | 0 | 20 |
| LEK451 | AGRI.DEMAND_&_SUPP.ANALYSIS451 Prerequisite/s: [LEK252] and [LEK261] and [LEK262] and [STK281] | K1 | 3 | 2 | 12 |
| LEK452 | COMMODITY_PRICE_ANALYSIS_452 Prerequisite/s: [LEK252] and [LEK261] and [LEK262] and [STK281] | K2 | 3 | 2 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 6/6 | 2/2 | 22/22 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| LEK421 | AGRICULTURAL_ECONOMICS_421 Prerequisite/s: [LEK451] and [STK210] | S2 | 3 | 2 | 24 |
| LEK424 | RESOURCE_ECONOMICS_424 Prerequisite/s: [LEK251] and [LEK252] | K4 | 3 | 0 | 10 |
| LEK463 | AGRIC.FINANC.MANA.&_MARKET_463 Prerequisite/s: [LEK251] and [LEK252] | K3 | 3 | 0 | 10 |
| Totals for compulsory modules in the third/fourth quarter | | | 6/6 | 2/2 | 22/22 |

Elective modules can be chosen from the following: ARD400, STK310, HSC350, WDE350, HSC450, PLG251, EKN320, and any modules from Animal and Wildlife Sciences.

**Compulsory credits = (88) Elective credits = (56)**

**A minimum of (627) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc(Agric) Animal Science** | **VKU** | **03130140** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 22/18 | 5/4 | 42/34 |

| Compulsory credits = (152) Elective credits = (0) | | | | | |
|---|---|---|---|---|---|

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| DAF250 | ANIMAL_ANAT._&_PHYSIOLOGY_250 Prerequisite/s: [CMY127] and [TDH] | S1 | 4 | 1 | 18 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| VDG250 | NUTRITION_250 Prerequisite/s: [CMY127] | S1 | 3 | 0.5 | 12 |
| VKU210 | ANIMAL_SCIENCE_210 | S1 | 1 | 0.5 | 6 |
| Totals for compulsory modules in the first/second quarter | | | 22/19 | 5/5 | 54/48 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| DAF260 | ANIMAL_ANAT._&_PHYSIOLOGY_260 Prerequisite/s: [DAF250] | S2 | 4 | 1 | 18 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| LBU260 | AGROCLIMATOLOGY_260 | S2 | 3 | 1 | 12 |
| VKU220 | ANIMAL_SCIENCE_220 Prerequisite/s: [VKU210] | S2 | 2 | 0.5 | 12 |
| Totals for compulsory modules in the third/fourth quarter | | | 15/15 | 4/4 | 39/39 |

| Compulsory credits = (180) Elective credits = (0) | | | | | |
|---|---|---|---|---|---|

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME210 | BIOMETRY_210 Prerequisite/s: [BME120] | S1 | 4 | 1 | 24 |
| DAN310 | ANIMAL_ANATOMY_310 Prerequisite/s: [DAF250] and [DAF260] | S1 | 1 | 0.5 | 8 |
| DFS311 | ANIMAL_PHYSIOLOGY_311 Prerequisite/s: [DAF250] and [DAF260] | S1 | 2 | 0 | 10 |
| RPL310 | REPRODUCTION_SCIENCE_310 Prerequisite/s: [DAF250] and [DAF260] | S1 | 1 | 0.5 | 8 |
| VGE301 | NUTRITIONAL_SCIENCE_301 Prerequisite/s: [BCM261] and [BCM262] and [DAF250] and [DAF260] and [VDG250] and [VKU220] | J1 | 3 | 0.5 | 16 |
| WDE250 | PRINCIPLES_OF_VELD_MANAGM._250 | S1 | 2 | 0.5 | 12 |
| WDE350 | PLANTED_PASTURES_350 Prerequisite/s: [WDE271 or WDE251] and [WDE272 or WDE252] | S1 | 2 | 0.5 | 14 |

| | Totals for compulsory modules in the first/second quarter | | | | 15/15 | 3.5/3.5 | 46/46 |
|---|---|---|---|---|---|---|---|
| **Third year, second semester:** | | | | | | | |
| Code | Name | | | Qrt | lpw | ppw | Crdt |
| DFS320 | GROWTH_PHYSIOLOGY_320 Prerequisite/s: [DAN310] and [DFS311] | | | S2 | 2 | 0.5 | 10 |
| RPL320 | REPRODUCTION_SCIENCE_320 Prerequisite/s: [RPL310] | | | S2 | 2 | 0.5 | 10 |
| TLR320 | LIVESTOCK_BREEDING_320 Prerequisite/s: [GTS261] | | | S2 | 2 | 0.5 | 10 |
| VGE301 | NUTRITIONAL_SCIENCE_301 Prerequisite/s: [BCM261] and [BCM262] and [DAF250] and [DAF260] and [VDG250] and [VKU220] | | | J1 | 3 | 0.5 | 16 |
| VKU361 | ANIMAL_ECOLOGY_361 Prerequisite/s: [VKU210] and [VKU220] | | | S2 | 2 | 0 | 8 |
| VKU362 | ANIMAL_SCI._BIOTECHNOLOGY_362 Prerequisite/s: [GTS226] | | | S2 | 1 | 0.5 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | | | 12/12 | 2.5/2.5 | 31/31 |
| | **Compulsory credits = (154) Elective credits = (0)** | | | | | | |
| | | | | | | | |
| **Fourth year, first semester:** | | | | | | | |
| Code | Name | | | Qrt | lpw | ppw | Crdt |
| TLR411 | LIVESTOCK_BREEDING_411 Prerequisite/s: [TLR320] | | | S1 | 2 | 0.5 | 12 |
| VGE411 | NUTRITION_SCIENCE_411 Prerequisite/s: [VGE301] | | | S1 | 4 | 0 | 18 |
| VKD410 | PIG_SCIENCE_410 Prerequisite/s: [LEK210] and [VGE301] and [VKU220] and [VNE361] | | | S1 | 1 | 0.5 | 8 |
| VKF411 | ANIMAL_SCI.PHARMACOLOGY_411 Prerequisite/s: [DFS320] and [VGE301] | | | S1 | 3 | 0 | 12 |
| VKU411 | SEMINAR_411 Prerequisite/s: [TDH] | | | S1 | 1 | 0 | 8 |
| VKU412 | RESEARCH_METHODOLOGY_412 Prerequisite/s: [TDH] | | | S1 | 1 | 0 | 8 |
| WLK410 | WOOL_SCIENCE_410 Prerequisite/s: [TLR320] and [VGE301] | | | S1 | 1 | 0.5 | 8 |
| | Totals for compulsory modules in the first/second quarter | | | | 13/13 | 1.5/1.5 | 37/37 |
| **Fourth year, second semester:** | | | | | | | |
| Code | Name | | | Qrt | lpw | ppw | Crdt |
| GVK420 | LARGE_STOCK_SCIENCE_420 Prerequisite/s: [LEK210] and [RPL320] and [VGE301] and [VKU210] and [VNE361] | | | S2 | 2 | 0 | 12 |
| KVK420 | SMALL_STOCK_SCIENCE_420 Prerequisite/s: [LEK210] and [RPL320] and [VGE301] and [VKU220] and [VNE361] | | | S2 | 2 | 0 | 12 |
| PVK420 | POULTRY_SCIENCE_420 Prerequisite/s: [LEK210] and [VGE301] and [VKU220] | | | S2 | 2 | 0.5 | 12 |
| TLR420 | LIVE_STOCK_BREEDING_420 Prerequisite/s: [TLR411] | | | S2 | 2 | 0.5 | 12 |
| VGE421 | NUTRITIONAL_SCIENCE_421 Prerequisite/s: [VGE301] | | | S2 | 3 | 0 | 16 |
| VGE423 | NUTRITION_SCIENCE_423 Prerequisite/s: [VGE301] | | | S2 | 3 | 0 | 16 |
| VSX420 | MEAT_AND_DAIRY_SCIENCE_420 Prerequisite/s: [DFS320] | | | S2 | 2 | 0 | 10 |
| WKE420 | WILDLIFE_SCIENCE_420 Prerequisite/s: [VGE301] and [VKU361] or [TDH] | | | S2 | 2 | 0 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | | | 18/18 | 1/1 | 50/50 |
| | | | | | | | |
| | **Compulsory credits = (169) Elective credits = (0)** | | | | | | |
| | | | | | | | |
| **A minimum of (655) credits is required to obtain the degree.** | | | | | | | |

| Field of study | Dept | Code |
|---|---|---|

| BSc(Agric) Animal Science/Animal Genetics | VKU | 03130251 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

| | | | | | |
|--|--|--|--|--|--|

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| DAF250 | ANIMAL_ANAT._&_PHYSIOLOGY_250 Prerequisite/s: [CMY127] or [TDH] | S1 | 4 | 1 | 18 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS ] or [TDH] | S1 | 2 | 0.5 | 12 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| VDG250 | NUTRITION_250 Prerequisite/s: [CMY127] | S1 | 3 | 0.5 | 12 |
| VKU210 | ANIMAL_SCIENCE_210 | S1 | 1 | 0.5 | 6 |

| | | | | | |
|---|---|---|---|---|---|
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 4/4 | 42/42 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| DAF260 | ANIMAL_ANAT._&_PHYSIOLOGY_260 Prerequisite/s: [DAF250] | S2 | 4 | 1 | 18 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| LBU260 | AGROCLIMATOLOGY_260 | S2 | 3 | 1 | 12 |
| VKU220 | ANIMAL_SCIENCE_220 Prerequisite/s: [VKU210] | S2 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 15/15 | 4/4 | 39/39 |

**Compulsory credits = (162) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME210 | BIOMETRY_210 Prerequisite/s: [BME120] | S1 | 4 | 1 | 24 |
| DAN310 | ANIMAL_ANATOMY_310 Prerequisite/s: [DAF250] and [DAF260] | S1 | 1 | 0.5 | 8 |
| DFS311 | ANIMAL_PHYSIOLOGY_311 Prerequisite/s: [DAF250] and [DAF260] | S1 | 2 | 0 | 10 |
| GTS352 | GENOMES_352 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| RPL310 | REPRODUCTION_SCIENCE_310 Prerequisite/s: [DAF250] and [DAF260] | S1 | 1 | 0.5 | 8 |
| VGE301 | NUTRITIONAL_SCIENCE_301 Prerequisite/s: [BCM261] and [BCM262] and [DAF250] and [DAF260] and [VDG250] and [VKU220] | J1 | 3 | 0.5 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 13/13 | 3.5/3.5 | 42/42 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| DFS320 | GROWTH_PHYSIOLOGY_320 Prerequisite/s: [DAN310] and [DFS311] | S2 | 2 | 0.5 | 10 |
| GTS361 | HUMAN_GENETICS_361 Prerequisite/s: [GTS251 GS] and [GTS261 GS ] or [TDH] | S2 | 2 | 1 | 18 |
| RPL320 | REPRODUCTION_SCIENCE_320 Prerequisite/s: [RPL310] | S2 | 2 | 0.5 | 10 |
| TLR320 | LIVESTOCK_BREEDING_320 Prerequisite/s: [GTS261] | S2 | 2 | 0.5 | 10 |
| VGE301 | NUTRITIONAL_SCIENCE_301 Prerequisite/s: [BCM261] and [BCM262] and [DAF250] and [DAF260] and [VDG250] and [VKU220] | J1 | 3 | 0.5 | 16 |
| VKU361 | ANIMAL_ECOLOGY_361 Prerequisite/s: [VKU210] and [VKU220] | S2 | 2 | 0 | 8 |
| VKU362 | ANIMAL_SCI._BIOTECHNOLOGY_362 Prerequisite/s: [GTS226] | S2 | 1 | 0.5 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/14 | 3.5/3.5 | 40/40 |

**Compulsory credits = (164) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|

| GTS353 | ADV._POPULATION_GENETICS_353 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
|---|---|---|---|---|---|
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| TLR411 | LIVESTOCK_BREEDING_411 Prerequisite/s: [TLR320] | S1 | 2 | 0.5 | 12 |
| VKD410 | PIG_SCIENCE_410 Prerequisite/s: [LEK210] and [VGE301] and [VKU220] and [VNE361] | S1 | 1 | 0.5 | 8 |
| VKF411 | ANIMAL_SCI.PHARMACOLOGY_411 Prerequisite/s: [DFS320] and [VGE301] | S1 | 3 | 0 | 12 |
| VKU411 | SEMINAR_411 Prerequisite/s: [TDH] | S1 | 1 | 0 | 8 |
| VKU412 | RESEARCH_METHODOLOGY_412 Prerequisite/s: [TDH] | S1 | 1 | 0 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 13/13 | 2/2 | 39/39 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GTS363 | EVOLUTIO._&_PHYLO-GENETICS_363 Prerequisite/s: [GTS353 GS ] or [TDH] | S2 | 2 | 1 | 18 |
| GVK420 | LARGE_STOCK_SCIENCE_420 Prerequisite/s: [LEK210] and [RPL320] and [VGE301] and [VKU210] and [VNE361] | S2 | 2 | 0 | 12 |
| KVK420 | SMALL_STOCK_SCIENCE_420 Prerequisite/s: [LEK210] and [RPL320] and [VGE301] and [VKU210] and [VNE361] | S2 | 2 | 0 | 12 |
| LEK320 | AGRICULTURAL_ECONOMICS_320 | S2 | 3 | 2 | 18 |
| PVK420 | POULTRY_SCIENCE_420 Prerequisite/s: [LEK210] and [VGE301] and [VKU220] | S2 | 2 | 0.5 | 12 |
| TLR420 | LIVE_STOCK_BREEDING_420 Prerequisite/s: [TLR411] | S2 | 2 | 0.5 | 12 |
| WKE420 | WILDLIFE_SCIENCE_420 Prerequisite/s: [VGE301] and [VKU361] or [TDH] | S2 | 2 | 0 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | 17/17 | 4.5/4.5 | 53/53 |

| **Compulsory credits = (170) Elective credits = (0)** |
|---|

**A minimum of (648) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc(Agric) Animal Science/Pasture Science** | **VKU** | **03130250** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% | S2 | 4 | 1 | 16 |

| | | | | | |
|---|---|---|---|---|---|
| | (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | | | | |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BOT251 | SA_FLORA_&_VEGETATION_251 Prerequisite/s: [BOT161] or [TDH] | S1 | 2 | 1 | 12 |
| DAF250 | ANIMAL_ANAT._&_PHYSIOLOGY_250 Prerequisite/s: [CMY127] or [TDH] | S1 | 4 | 1 | 18 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| VDG250 | NUTRITION_250 Prerequisite/s: [CMY127] | S1 | 3 | 0.5 | 12 |
| VKU210 | ANIMAL_SCIENCE_210 | S1 | 1 | 0.5 | 6 |
| Totals for compulsory modules in the first/second quarter | | | 16/16 | 4.5/4.5 | 42/42 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127 ] or [TDH] | S2 | 2 | 1 | 12 |
| DAF260 | ANIMAL_ANAT._&_PHYSIOLOGY_260 Prerequisite/s: [DAF250] | S2 | 4 | 1 | 18 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| LBU260 | AGROCLIMATOLOGY_260 | S2 | 3 | 1 | 12 |
| VKU220 | ANIMAL_SCIENCE_220 Prerequisite/s: [VKU210] | S2 | 2 | 0.5 | 12 |
| Totals for compulsory modules in the third/fourth quarter | | | 17/17 | 5/5 | 45/45 |
| **Compulsory credits = (174) Elective credits = (0)** | | | | | |
| **Third year, first semester:** | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| DAN310 | ANIMAL_ANATOMY_310 Prerequisite/s: [DAF250] and [DAF260] | S1 | 1 | 0.5 | 8 |
| DFS311 | ANIMAL_PHYSIOLOGY_311 Prerequisite/s: [DAF250] and [DAF260] | S1 | 2 | 0 | 10 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| RPL310 | REPRODUCTION_SCIENCE_310 Prerequisite/s: [DAF250] and [DAF260] | S1 | 1 | 0.5 | 8 |
| VGE301 | NUTRITIONAL_SCIENCE_301 Prerequisite/s: [BCM261] and [BCM262] and [DAF250] and [DAF260] and [VDG250] and [VKU220] | J1 | 3 | 0.5 | 16 |
| WDE250 | PRINCIPLES_OF_VELD_MANAGM._250 | S1 | 2 | 0.5 | 12 |
| WDE350 | PLANTED_PASTURES_350 Prerequisite/s: [WDE271 or WDE251] and [WDE272 or WDE252] | S1 | 2 | 0.5 | 14 |
| | Totals for compulsory modules in the first/second quarter | | 17/17 | 3.5/3.5 | 46/46 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| DFS320 | GROWTH_PHYSIOLOGY_320 Prerequisite/s: [DAN310] and [DFS311] | S2 | 2 | 0.5 | 10 |
| GKD260 | SOIL_FERTIL.&_PLANT_NUTRIT.260 Prerequisite/s: [GKD250 GS] | S2 | 3 | 1 | 12 |
| RPL320 | REPRODUCTION_SCIENCE_320 Prerequisite/s: [RPL310] | S2 | 2 | 0.5 | 10 |
| TLR320 | LIVESTOCK_BREEDING_320 Prerequisite/s: [GTS261] | S2 | 2 | 0.5 | 10 |
| VGE301 | NUTRITIONAL_SCIENCE_301 Prerequisite/s: [BCM261] and [BCM262] and [DAF250] and [DAF260] and [VDG250] and [VKU220] | J1 | 3 | 0.5 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/12 | 3/3 | 29/29 |

**Compulsory credits = (150) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME210 | BIOMETRY_210 Prerequisite/s: [BME120] | S1 | 4 | 1 | 24 |
| GKD350 | SOIL_CLASSIF.&_SURVEYING_350 Prerequisite/s: [GKD250 GS] | S1 | 2 | 1 | 14 |
| LBU410 | LAND_USE_PLANNING_410 Prerequisite/s: [GKD250] | S1 | 3 | 1 | 14 |
| VGE411 | NUTRITION_SCIENCE_411 Prerequisite/s: [VGE301] | S1 | 4 | 0 | 18 |
| VKU411 | SEMINAR_411 Prerequisite/s: [TDH] | S1 | 1 | 0 | 8 |
| VKU412 | RESEARCH_METHODOLOGY_412 Prerequisite/s: [TDH] | S1 | 1 | 0 | 8 |
| WDE450 | EVAL._OF_RANGE_&_FORAGES_450 | S1 | 3 | 0 | 14 |
| | Totals for compulsory modules in the first/second quarter | | 18/18 | 3/3 | 50/50 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| APS461 | CROP_PHYSIOLOGY_461 Prerequisite/s: [GKD250] and [GKD260] and [HSC252] and [HSC261] and [PGW352] | S2 | 2 | 0.5 | 14 |
| GVK420 | LARGE_STOCK_SCIENCE_420 Prerequisite/s: [LEK210] and [RPL320] and [VGE301] and [VKU210] and [VNE361] | S2 | 2 | 0 | 12 |
| KVK420 | SMALL_STOCK_SCIENCE_420 Prerequisite/s: [LEK210] and [RPL320] and [VGE301] and [VKU220] and [VNE361] | S2 | 2 | 0 | 12 |

| LIR421 | AGRICULTURAL_ENGINEERING_421 | S2 | 3 | 2 | 8 |
|---|---|---|---|---|---|
| VGE421 | NUTRITIONAL_SCIENCE_421 Prerequisite/s: [VGE301] | S2 | 3 | 0 | 16 |
| VGE423 | NUTRITION_SCIENCE_423 Prerequisite/s: [VGE301] | S2 | 3 | 0 | 16 |
| VSX420 | MEAT_AND_DAIRY_SCIENCE_420 Prerequisite/s: [DFS320] | S2 | 2 | 0 | 10 |
| WKE420 | WILDLIFE_SCIENCE_420 Prerequisite/s: [VGE301] and [VKU361] or [TDH] | S2 | 2 | 0 | 10 |
| Totals for compulsory modules in the third/fourth quarter | | | 19/19 | 2.5/2.5 | 49/49 |

| | |
|---|---|
| **Compulsory credits = (198) Elective credits = (0)** | |

**A minimum of (674) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc(Agric) Food Science and Technology** | **VDW** | **03130370** |

**First year, first semester:**

| Code | Name | Qrt | Lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 22/18 | 5/4 | 42/34 |

| | |
|---|---|
| **Compulsory credits = (152) Elective credits = (0)** | |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| FST250 | INTRO/FOOD_SCIENCE_&_TECH._250 Prerequisite/s: [CMY117] and [CMY127] and [MBY161] and [PHY131] and [WTW134] or [TDH] | S1 | 2 | 1 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| VDG250 | NUTRITION_250 Prerequisite/s: [CMY127] | S1 | 3 | 0.5 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/14 | 3.5/3.5 | 36/36 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| FST260 | PRIN/FOOD_PROC._&_PRESERV._260 Prerequisite/s: [CMY117] and [CMY127] and [MBY161] and [PHY131] and [WTW134] or [TDH] | S2 | 2 | 1 | 12 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 11/11 | 3/3 | 30/30 |
| | **Compulsory credits = (132) Elective credits = (12)** | | | | |

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| FST350 | INTEGRATED_FOOD_SCIENCE_350 Prerequisite/s: [FST250] and [FST260] or [TDH] | S1 | 1 | 0 | 18 |
| FST351 | FOOD_CHEMISTRY-(1)_351 Prerequisite/s: [BCM251] and [BCM252] and [BCM261] and [BCM262] or [TDH] | S1 | 2 | 1 | 18 |
| FST352 | FOOD_CHEMISTRY-(2)_352 Prerequisite/s: [FST351] | S1 | 2 | 1 | 18 |
| FST353 | FOOD_ENGINEERING_353 Prerequisite/s: [CMY117] and [CMY127] and [FST260] and [PHY131] and [WTW134] or [TDH] | S1 | 3 | 0.5 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 2.5/2.5 | 36/36 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| FST360 | PLANT_FOOD_SCIENCE_360 Prerequisite/s: [FST250] and [FST260] and [FST351] and [FST352] or [TDH] | S2 | 2 | 1 | 18 |
| FST361 | ANIMAL_FOOD_SCIENCE_361 Prerequisite/s: [FST250] and [FST260] and [FST351] and [FST352] or [TDH] | S2 | 2 | 1 | 18 |
| LEK320 | AGRICULTURAL_ECONOMICS_320 | S2 | 3 | 2 | 18 |
| MBY362 | FOOD_MICROBIOLOGY_362 Prerequisite/s: [MBY251] | S2 | 2 | 1 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 9/9 | 5/5 | 36/36 |
| | **Compulsory credits = (144) Elective credits = (0)** | | | | |

| Fourth year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| FST400 | RESEARCH_METHODOLOGY_&_SEM.400 Prerequisite/s: [Third year status] or [TDH] | J1 | 2 | 1 | 10 |
| FST401 | ANIMAL_FOOD_TECHNOLOGY_401 Prerequisite/s: [FST361] or [TDH] | J1 | 3 | 1.5 | 15 |
| FST402 | PLANT_FOOD_TECHNOLOGIES_402 Prerequisite/s: [FST360] or [TDH] | J1 | 3 | 1.5 | 15 |
| FST410 | PRODUCT_DEVELOPMENT_410 Prerequisite/s: [FST260] and [FST351] and [FST352] or [TDH] | S1 | 2 | 1 | 20 |
| FST411 | SENSORY_ANAL.&QUAL.MAN.SYS.411 Prerequisite/s: [FST260] and [FST351] and [FST352] or [TDH] | S1 | 2 | 1 | 20 |
| Totals for compulsory modules in the first/second quarter | | | 12/12 | 6/6 | 40/40 |
| Fourth year, second semester: | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| FST400 | RESEARCH_METHODOLOGY_&_SEM.400 Prerequisite/s: [Third year status] or [TDH] | J1 | 2 | 1 | 10 |
| FST401 | ANIMAL_FOOD_TECHNOLOGY_401 Prerequisite/s: [FST361] or [TDH] | J1 | 3 | 1.5 | 15 |
| FST402 | PLANT_FOOD_TECHNOLOGIES_402 Prerequisite/s: [FST360] or [TDH] | J1 | 3 | 1.5 | 15 |
| FST420 | ADVANCED_FOOD_SCIENCE_420 Prerequisite/s: [Third year status] or [TDH] | S2 | 2 | 1 | 20 |
| FST463 | PROJECT_463 Prerequisite/s: [Third-year status in Food Science or TDH] | S2 | 1 | 2 | 20 |
| Totals for compulsory modules in the third/fourth quarter | | | 11/11 | 7/7 | 40/40 |
| | | | | | |
| **Compulsory credits = (160) Elective credits = (0)** | | | | | |
| | | | | | |
| **A minimum of (600) credits is required to obtain the degree.** | | | | | |

| Field of study | Dept | Code |
|---|---|---|
| **BSc(Agric) Genetics: Plant Breeding** | **GTS** | **03130301** |

| First year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 4/4 | 38/38 |
| First year, second semester: | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% | S2 | 4 | 1 | 16 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| | (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | | | | |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |
| | | | | | |
| | **Compulsory credits = (152) Elective credits = (0)** | | | | |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| BCM252 | CARBOHYDRATE_METABOLISM_252 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| GTS251 | GENE_&_CHROMOSOME_ORGANIZ._251 Prerequisite/s: [GTS161 GS] or [TDH] | S1 | 2 | 0.5 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| PLG251 | INTRO._CROP_PROTECTION_251 | S1 | 2 | 1 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 4/4 | 42/42 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM261 | LIPID_&_NITROGEN_METABOLIS.261 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| BCM262 | BIOCHEMISTRY_IN_PERSPECT._262 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S2 | 2 | 0.5 | 12 |
| GTS261 | GENETIC_ANAL._&_MANIPULA._261 Prerequisite/s: [GTS161 GS] or [TDH] | S2 | 2 | 0.5 | 12 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| PLG261 | EPIDEMIOLOGY_261 | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 11/11 | 2.5/2.5 | 28/28 |
| | | | | | |
| | **Compulsory credits = (140) Elective credits = (0)** | | | | |
| | | | | | |

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| GTS351 | EUKARYOTIC_GENE_CON.&_DEVL.351 Prerequisite/s: [GTS251 GS] | S1 | 2 | 1 | 18 |

| | | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| | and [GTS261 GS] or [TDH] | | | | |
| GTS352 | GENOMES_352 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| GTS353 | ADV._POPULATION_GENETICS_353 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S1 | 2 | 1 | 18 |
| PLG351 | GENERAL_PLANTPATHOLOGY_351 | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 4/4 | 36/36 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GTS362 | INTRODUCTION_TO_PLANTBREED.362 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S2 | 2 | 1 | 18 |
| GTS363 | EVOLUTIO._&_PHYLO-GENETICS_363 Prerequisite/s: [GTS353 GS] or [TDH] | S2 | 2 | 1 | 18 |
| PLG364 | HOST_PATHOGEN_INTERACTIONS_364 | S2 | 2 | 1 | 18 |
| ZEN365 | INSECT_PEST_MANAGEMENT_365 | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 6/10 | 3/5 | 27/45 |

**Compulsory credits = (144) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGR313 | PRIMARY_FOOD_CROPS_313 | S1 | 2 | 0.5 | 14 |
| BME210 | BIOMETRY_210 Prerequisite/s: [BME120] | S1 | 4 | 1 | 24 |
| GTS451 | SEMINAR_&_TECHNIQUES_MODULE451 Prerequisite/s: [GTS352 GS] or [TDH] | K1 | 4 | 1 | 18 |
| GTS452 | ADVANCED_PLANT_BREEDING_452 Prerequisite/s: [GTS362 GS] or [TDH] | K2 | 4 | 1 | 18 |
| HSC351 | NURSERY_MANAGEMENT_351 | S1 | 2 | 0.5 | 14 |
| | Totals for compulsory modules in the first/second quarter | | 12/12 | 3/3 | 44/44 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGR361 | INDUSTRIAL_CROPS_361 Prerequisite/s: [HSC252] and [PPK251] | S2 | 2 | 0.5 | 14 |
| GTS461 | PLANTBREEDING_STRATEGIES_461 Prerequisite/s: [GTS452 GS] or [TDH] | K3 | 4 | 1 | 18 |
| GTS462 | APPLICATIONS_IN_PLANTBREED.462 Prerequisite/s: [GTS452 GS] or [TDH] | K4 | 1 | 2 | 18 |
| PLG461 | NURSERY_&_SEED_PATHOLOGY_461 | S2 | 1 | 0.5 | 10 |
| WDE461 | TURFGRASS_MANAGEMENT_461 | S2 | 2 | 0.5 | 14 |
| | Totals for compulsory modules in the third/fourth quarter | | 9/6 | 2.5/3.5 | 37/37 |

**Compulsory credits = (162) Elective credits = (2)**

**A minimum of (600) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|

| BSc(Agric) Mechanized Agriculture | LBI | 03130411 |
|---|---|---|

**First year, first semester:**

**Please note:** This option has temporarily been put on hold. No new students will be admitted until further notice.

| Code | Name | Qrt | Lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| FSK116 | PHYSICS_116 Prerequisite/s: [WTW114 #] and [Par 1.2] | S1 | 4 | 1 | 16 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| WTW114 | CALCULUS_114 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 4/4 | 38/38 |

**WTW134 can be taken instead of WTW114**

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| SWK122 | MECHANICS_122 | S2 | 4 | 0 | 16 |
| WTW126 | LINEAR_ALGEBRA_126 Prerequisite/s: [Par 1.2] | S2 | 2 | 1 | 8 |
| WTW128 | CALCULUS_128 Prerequisite/s: [WTW114 GS or WTW101 GS] | S2 | 2 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 16/16 | 3/3 | 30/30 |

WTW144 can be taken instead of WTW126 and WTW128.

<div align="center">

**Compulsory credits = (136) Elective credits = (16)**

</div>

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| FRK151 | FINANCIAL_ACCOUNTING_151 Prerequisite/s: [ Par.1.2] | K1 | 4 | 0 | 5 |
| FRK152 | FINANCIAL_ACCOUNTING_152 Prerequisite/s: [FRK151 GS] and [Par.1.2] | K2 | 4 | 0 | 5 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| MIT113 | ENGINEERING_DRAWING_113 | S1 | 3 | 0 | 16 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| Totals for compulsory modules in the first/second quarter | | | 17/17 | 2/2 | 37/37 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|

| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
|---|---|---|---|---|---|
| HSC261 | TREE_GROWTH_&_DEVELOPMENT_261 Prerequisite/s: [GKD250] and [GKD260 #] and [HSC252] | K3 | 2 | 0.5 | 6 |
| IGB220 | ENGINEERING_MANAGEMENT_220 | S2 | 2 | 0 | 10 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| LKW222 | AGRIC._POWER_MACHINERY_222 | S2 | 2 | 0.5 | 14 |
| Totals for compulsory modules in the third/fourth quarter | | | 13/11 | 2/1.5 | 32/26 |

### Compulsory credits = (132) Elective credits = (12)

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGR313 | PRIMARY_FOOD_CROPS_313 | S1 | 2 | 0.5 | 14 |
| LPR311 | PROCESSING_311 | S1 | 3 | 0 | 8 |
| LPR312 | PROCESSING_312 | S1 | 2 | 0.5 | 8 |
| LSQ313 | COMMUNICATION_313 | S1 | 0.5 | 0 | 2 |
| PGW350 | SOIL_WATER_RELA.&_IRRIGAT._350 | S1 | 2 | 0.5 | 16 |
| TRN215 | SITE_SURVEYING_215 | S1 | 2 | 1 | 8 |
| TRN217 | SITE_SURVEYING_217 | S1 | 2 | 1 | 8 |
| WKD151 | ATMOSPHERIC_PROCESSES_151 | K1 | 4 | 0.6 | 8 |
| WKD152 | ATMOSPHERIC_CIRC.&_CLIMATE_152 | K2 | 4 | 0.6 | 8 |
| Totals for compulsory modules in the first/second quarter | | | 17.5/17.5 | 4.1/4.1 | 40/40 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGR361 | INDUSTRIAL_CROPS_361 Prerequisite/s: [HSC252] and [PPK251] | S2 | 2 | 0.5 | 14 |
| GKD260 | SOIL_FERTIL.&_PLANT_NUTRIT.260 Prerequisite/s: [GKD250 GS] | S2 | 3 | 1 | 12 |
| GMA220 | REMOTE_SENSING_220 Prerequisite/s: [GPS220] or [TDH] | S2 | 3 | 1 | 16 |
| LBC320 | INDUSTRIAL_PRINCIPLES_320 | S2 | 2 | 0 | 8 |
| LHL311 | HYDRAULICS_311 | S2 | 2 | 0.5 | 10 |
| LOX320 | DESIGN_320 | S2 | 0 | 1 | 8 |
| PGW361 | EXPERIMENTAL_DESIGN_&_ANAL.361 Prerequisite/s: [BME161] and [BME162] | S2 | 2 | 0.5 | 14 |
| Totals for compulsory modules in the third/fourth quarter | | | 14/14 | 4.5/4.5 | 41/41 |

### Compulsory credits = (162) Elective credits = (0)

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GGY283 | INTRODUCTORY_GIS_283 | S1 | 4 | 2 | 12 |
| LGD411 | SOIL_DYNAMICS_411 | S1 | 2 | 0.5 | 10 |
| LHL411 | HYDRAULICS_411 | S1 | 2 | 0.5 | 15 |
| LLS410 | AGRICULTURAL_STRUCTURES_410 | S1 | 3 | 0.5 | 15 |
| LPW410 | AGRIC.PRODUCTION_EQUIPMENT_410 | S1 | 2 | 0.5 | 10 |

| LSC402 | PROJECT_402 Prerequisite/s: [LOX320] | J1 | 0 | 1.5 | 16 |
|--------|--------------------------------------|----|----|-----|-----|
| | Totals for compulsory modules in the first/second quarter | | 13/9 | 5.5/3.5 | 45/33 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|--------|------|-----|-----|-----|------|
| LBP420 | IRRIGATION_420 Prerequisite/s: [LHL311/LHL401] | S2 | 3 | 0.5 | 15 |
| LEK320 | AGRICULTURAL_ECONOMICS_320 | S2 | 3 | 2 | 18 |
| LGH420 | SOIL_CONSERV._&_HYDROLOGY_420 | S2 | 3 | 0.5 | 15 |
| LLI420 | RURAL_ENGINEERING_420 | S2 | 3 | 0 | 9 |
| LSC402 | PROJECT_402 Prerequisite/s: [LOX320] | J1 | 0 | 1.5 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/12 | 4.5/4.5 | 36.5/36.5 |

**Compulsory credits = (151) Elective credits = (11)**

**A minimum of (620) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BSc(Agric) Plant Pathology** | **MBY** | **03130321** |

| First year, first semester: | | | | | |
|--------|------|-----|-----|-----|------|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |
| **First year, second semester:** | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

| Compulsory credits = (152) Elective credits = (0) | | | | | |
|---|---|---|---|---|---|

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| PLG351 | GENERAL_PLANTPATHOLOGY_351 | S1 | 2 | 1 | 18 |
| ZEN355 | INSECT_DIVERSITY_355 | K2 | 4 | 2 | 18 |
| Totals for compulsory modules in the first/second quarter | | | 10/11 | 2.5/4.5 | 27/39 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
| GKD260 | SOIL_FERTIL.&_PLANT_NUTRIT.260 Prerequisite/s: [GKD250 GS] | S2 | 3 | 1 | 12 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| PLG261 | EPIDEMIOLOGY_261 | S2 | 2 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 12/12 | 4/4 | 28/28 |

PLG251 is recommended as an elective module.

| Compulsory credits = (122) Elective credits = (21) | | | | | |
|---|---|---|---|---|---|

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGR313 | PRIMARY_FOOD_CROPS_313 | S1 | 2 | 0.5 | 14 |
| BOT352 | PLANT_STRUCTURE_&_FUNCTION_352 Prerequisite/s: [BOT161] or [TDH] and [CMY117] or [TDH] and [CMY127] or [TDH] | S1 | 2 | 1 | 18 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| MBY351 | STRUCT.&_DIVERS.OF_VIRUSES_351 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S1 | 2 | 1 | 18 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| SCI153 | ACADEMIC_SKILLS_153 | K1 | 0 | 1 | 6 |
| Totals for compulsory modules in the first/second quarter | | | 10/10 | 5/4 | 43/37 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| MBY364 | GENE.MANIPULATION/MICROBES.364 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S2 | 2 | 1 | 18 |
| PLG363 | PLANT_DISEASE_CONTROL_363 | S2 | 2 | 1 | 18 |
| PLG364 | HOST_PATHOGEN_INTERACTIONS_364 | S2 | 2 | 1 | 18 |
| Totals for compulsory modules in the third/fourth quarter | | | 6/6 | 3/3 | 27/27 |

| Compulsory credits = (134) Elective credits = (0) | | | | | |
|---|---|---|---|---|---|
| | | | | | |

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME210 | BIOMETRY_210 Prerequisite/s: [BME120] | S1 | 4 | 1 | 24 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| MBY352 | ENVIRONMENTAL_MICROBIOLOGY_352 Prerequisite/s: [MBY161] | S1 | 2 | 1 | 18 |
| OKW413 | WEED_SCIENCE_413 | S1 | 2 | 0.5 | 14 |
| PGW401 | SEMINAR_401 | J1 | 1 | 0 | 8 |
| PLG462 | RESEARCH_PROJECT_462 | J1 | 1 | 1 | 10 |
| Totals for compulsory modules in the first/second quarter | | | 12/12 | 4/4 | 43/43 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGV421 | COMMUNICATION_421 | S2 | 2 | 0 | 20 |
| HSC460 | PROD.SYS.1V:SUBTROP.FRU.PR.460 | S2 | 2 | 0.5 | 12 |
| MBY363 | MOLEC._BIOL.OF_PROKARYOTES_363 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S2 | 2 | 1 | 18 |
| PGW361 | EXPERIMENTAL_DESIGN_&_ANAL.361 Prerequisite/s: [BME161] and [BME162] | S2 | 2 | 0.5 | 14 |
| PGW401 | SEMINAR_401 | J1 | 1 | 0 | 8 |
| PLG461 | NURSERY_&_SEED_PATHOLOGY_461 | S2 | 1 | 0.5 | 10 |
| PLG462 | RESEARCH_PROJECT_462 | J1 | 1 | 1 | 10 |
| Totals for compulsory modules in the third/fourth quarter | | | 11/11 | 3.5/3.5 | 46/46 |
| | | | | | |
| **Compulsory credits = (178) Elective credits = (0)** | | | | | |
| **A minimum of (600) credits is required to obtain the degree.** | | | | | |

| Field of study | Dept | Code |
|---|---|---|
| **BSc(Agric) Plant Production** | **PGW** | **03130161** |

| Students who want to enroll for the main subjects: Agronomy, Horticulture or Pasture Science, must register for the BSc(Agric) Plant Production degree. | | | | | |
|---|---|---|---|---|---|

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| PLG251 | INTRO._CROP_PROTECTION_251 | S1 | 2 | 1 | 12 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| WDE250 | PRINCIPLES_OF_VELD_MANAGM._250 | S1 | 2 | 0.5 | 12 |
| Totals for compulsory modules in the first/second quarter | | | 16/16 | 4/4 | 42/42 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
| GKD260 | SOIL_FERTIL.&_PLANT_NUTRIT.260 Prerequisite/s: [GKD250 GS] | S2 | 3 | 1 | 12 |
| LKM262 | AGRICULTURAL_CLIMATOLOGY_262 | S2 | 2 | 0.5 | 12 |
| PLG363 | PLANT_DISEASE_CONTROL_363 | S2 | 2 | 1 | 18 |
| ZEN365 | INSECT_PEST_MANAGEMENT_365 | K4 | 4 | 2 | 18 |
| Totals for compulsory modules in the third/fourth quarter | | | 9/13 | 3.5/5.5 | 27/45 |

**Compulsory credits = (156) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| GKD350 | SOIL_CLASSIF.&_SURVEYING_350 Prerequisite/s: [GKD250 GS] | S1 | 2 | 1 | 14 |
| GKD351 | SOIL_PHYSICS_351 Prerequisite/s: [GKD250] | S1 | 1 | 0.5 | 10 |
| PGW350 | SOIL_WATER_RELA.&_IRRIGAT._350 | S1 | 2 | 0.5 | 16 |

| | Totals for compulsory modules in the first/second quarter | | 5/5 | 2/2 | 20/20 |
|---|---|---|---|---|---|

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| HSC362 | DECIDUOUS_POMOLOGY_362 Prerequisite/s: [HSC261] and [PPK251] | S2 | 2 | 0.5 | 14 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| LIR421 | AGRICULTURAL_ENGINEERING_421 | S2 | 3 | 2 | 8 |
| PGW361 | EXPERIMENTAL_DESIGN_&_ANAL.361 Prerequisite/s: [BME161] and [BME162] | S2 | 2 | 0.5 | 14 |
| | Totals for compulsory modules in the third/fourth quarter | | 10/10 | 3/3 | 24/24 |

Electives can be chosen from: VKU210,220,221,222, WDE350,420, AGR313,361, HSC350,351,362 and PLG461.

**Compulsory credits = (88) Elective credits = (56)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME210 | BIOMETRY_210 Prerequisite/s: [BME120] | S1 | 4 | 1 | 24 |
| LBU410 | LAND_USE_PLANNING_410 Prerequisite/s: [GKD250] | S1 | 3 | 1 | 14 |
| LKM450 | ENVIRONMENTAL_BIOPHYSICS_450 | S1 | 2 | 0.5 | 16 |
| OKW413 | WEED_SCIENCE_413 | S1 | 2 | 0.5 | 14 |
| PGW400 | SEMINAR_400 | J1 | 3 | 0 | 10 |
| | Totals for compulsory modules in the first/second quarter | | 14/14 | 3/3 | 39/39 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| APS461 | CROP_PHYSIOLOGY_461 Prerequisite/s: [GKD250] and [GKD260] and [HSC252] and [HSC261] and [PGW352] | S2 | 2 | 0.5 | 14 |
| GKD460 | ENVIRONMENTAL_MANAGEMENT_460 Prerequisite/s: [GKD250] and [GKD350] | S2 | 2 | 1 | 14 |
| GTS362 | INTRODUCTION_TO_PLANTBREED.362 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S2 | 2 | 1 | 18 |
| PGW400 | SEMINAR_400 | J1 | 3 | 0 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | 9/9 | 2.5/2.5 | 28/28 |

Electives can be chosen from: PPR450, WDE450,461,481, HSC450,460,490 and AGR460.

**Compulsory credits = (134) Elective credits = (26)**

**A minimum of (612) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| BSc(Agric) Plant Protection | MBY | 03130261 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |
| | | | | | |
| | **Compulsory credits = (152) Elective credits = (0)** | | | | |
| | | | | | |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BME210 | BIOMETRY_210 Prerequisite/s: [BME120] | S1 | 4 | 1 | 24 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| PLG251 | INTRO._CROP_PROTECTION_251 | S1 | 2 | 1 | 12 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 4/4 | 42/42 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
| GKD260 | SOIL_FERTIL.&_PLANT_NUTRIT.260 Prerequisite/s: [GKD250 GS] | S2 | 3 | 1 | 12 |
| HSC261 | TREE_GROWTH_&_DEVELOPMENT_261 Prerequisite/s: [GKD250] and [GKD260 #] and [HSC252] | K3 | 2 | 0.5 | 6 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and | S2 | 3 | 0 | 12 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| | [LEK252 or EKN113 and/or EKN120] | | | | |
| LKM262 | AGRICULTURAL_CLIMATOLOGY_262 | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| PLG261 | EPIDEMIOLOGY_261 | S2 | 2 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 16/14 | 5/4.5 | 40/34 |

**Compulsory credits = (158) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BOT352 | PLANT_STRUCTURE_&_FUNCTION_352 Prerequisite/s: [BOT161] or [TDH] and [CMY117] or [TDH] and [CMY127] or [TDH] | S1 | 2 | 1 | 18 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| PLG351 | GENERAL_PLANTPATHOLOGY_351 | S1 | 2 | 1 | 18 |
| SCI153 | ACADEMIC_PROFICIENCY_153 | K1 | 0 | 1 | 6 |
| ZEN355 | INSECT_DIVERSITY_355 | K2 | 4 | 2 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 6/10 | 4/5 | 30/42 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GTS362 | INTRODUCTION_TO_PLANTBREED.362 Prerequisite/s: [GTS251 GS] and [GTS261 GS] or [TDH] | S2 | 2 | 1 | 18 |
| PLG363 | PLANT_DISEASE_CONTROL_363 | S2 | 2 | 1 | 18 |
| PLG364 | HOST_PATHOGEN_INTERACTIONS_364 | S2 | 2 | 1 | 18 |
| ZEN365 | INSECT_PEST_MANAGEMENT_365 | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 6/10 | 3/5 | 27/45 |

**Compulsory credits = (144) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGR313 | PRIMARY_FOOD_CROPS_313 | S1 | 2 | 0.5 | 14 |
| HSC350 | CITRICULTURE_350 Prerequisite/s: [HSC252] and [HSC261] and [PPK251] | S1 | 3 | 1 | 14 |
| HSC351 | NURSERY_MANAGEMENT_351 | S1 | 2 | 0.5 | 14 |
| MBY352 | ENVIRONMENTAL_MICROBIOLOGY_352 Prerequisite/s: [MBY161] | S1 | 2 | 1 | 18 |
| OKW413 | WEED_SCIENCE_413 | S1 | 2 | 0.5 | 14 |
| PGW400 | SEMINAR_400 | J1 | 3 | 0 | 10 |
| PLG462 | RESEARCH_PROJECT_462 | J1 | 1 | 1 | 10 |
| | Totals for compulsory modules in the first/second quarter | | 15/15 | 4.5/4.5 | 47/47 |

**HSC450 can be taken instead of HSC350.**

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGR361 | INDUSTRIAL_CROPS_361 Prerequisite/s: [HSC252] and [PPK251] | S2 | 2 | 0.5 | 14 |
| AGR460 | PROD.SYST.11:_VEGETABLE_CR.460 | S2 | 2 | 0.5 | 12 |
| AGV421 | COMMUNICATION_421 | S2 | 2 | 0 | 20 |

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| MBY363 | MOLEC._BIOL.OF_PROKARYOTES_363 Prerequisite/s: [BCM251] and [CMY127] and [MBY161] | S2 | 2 | 1 | 18 |
| PGW361 | EXPERIMENTAL_DESIGN_&_ANAL.361 Prerequisite/s: [BME161] and [BME162] | S2 | 2 | 0.5 | 14 |
| PGW400 | SEMINAR_400 | J1 | 3 | 0 | 10 |
| PLG461 | NURSERY_&_SEED_PATHOLOGY_461 | S2 | 1 | 0.5 | 10 |
| PLG462 | RESEARCH_PROJECT_462 | J1 | 1 | 1 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | 15/15 | 4/4 | 54/54 |

MBY364 can be taken instead of PGW361.

**Compulsory credits = (202) Elective credits = (0)**

**A minimum of (656) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BSc(Agric) Soil Science** | **PGW** | **03130290** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| CMY117 | GENERAL_CHEMISTRY_117 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| MLB111 | MOLECULAR_&_CELL_BIOLOGY_111 | S1 | 4 | 1 | 16 |
| PHY131 | GENERAL_PHYSICS_131 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| WTW134 | MATHEMATICS_134 Prerequisite/s: [Par 1.2] | S1 | 4 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 4/4 | 38/38 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| BOT161 | PLANT_BIOLOGY_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| CMY127 | GENERAL_CHEMISTRY_127 Prerequisite/s: [CMY117 GS or CMY101] | S2 | 4 | 1 | 16 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| GTS161 | INTRODUCTORY_GENETICS_161 Prerequisite/s: [MLB111 GS] or [TDH] | S2 | 2 | 0.5 | 8 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| ZEN161 | ANIMAL_DIVERSITY_161 | K3 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 5/4 | 42/34 |

**Compulsory credits = (152) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BCM251 | INTRO._TO_PROT._&_ENZYMES_251 Prerequisite/s: [CMY117 GS] and [CMY127 GS] and [MLB111 GS] | S1 | 2 | 0.5 | 12 |
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| PLG251 | INTRO._CROP_PROTECTION_251 | S1 | 2 | 1 | 12 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| WDE250 | PRINCIPLES_OF_VELD_MANAGM._250 | S1 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 4/4 | 42/42 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BOT261 | PLANT_BIOCHEM._EVOLUTION_261 Prerequisite/s: [BOT161] and [CMY117] and [CMY127] or [TDH] | S2 | 2 | 1 | 12 |
| GKD260 | SOIL_FERTIL.&_PLANT_NUTRIT.260 Prerequisite/s: [GKD250 GS] | S2 | 3 | 1 | 12 |
| LKM262 | AGRICULTURAL_CLIMATOLOGY_262 | S2 | 2 | 0.5 | 12 |
| PLG363 | PLANT_DISEASE_CONTROL_363 | S2 | 2 | 1 | 18 |
| ZEN365 | INSECT_PEST_MANAGEMENT_365 | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 9/13 | 3.5/5.5 | 27/45 |

**Compulsory credits = (156) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CMY282 | PHYSICAL_CHEMISTRY_282 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] and [WTW114 GS or WTW134 GS or WTW158 GS] | K1 | 4 | 1 | 12 |
| CMY284 | ORGANIC_CHEMISTRY_284 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K2 | 4 | 1 | 12 |
| GKD350 | SOIL_CLASSIF.&_SURVEYING_350 Prerequisite/s: [GKD250 GS] | S1 | 2 | 1 | 14 |
| GKD351 | SOIL_PHYSICS_351 Prerequisite/s: [GKD250] | S1 | 1 | 0.5 | 10 |
| GKD370 | SOIL_CHEMISTRY_370 Prerequisite/s: [GKD250] | S1 | 2 | 1 | 14 |
| PGW350 | SOIL_WATER_RELA.&_IRRIGAT._350 | S1 | 2 | 0.5 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 11/11 | 4/4 | 39/39 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| AGR361 | INDUSTRIAL_CROPS_361 Prerequisite/s: [HSC252] and [PPK251] | S2 | 2 | 0.5 | 14 |
| CMY283 | ANALYTICAL_CHEMISTRY_283 Prerequisite/s: [CMY117 or CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | K3 | 4 | 1 | 12 |
| CMY285 | INORGANIC_CHEMISTRY_285 Prerequisite/s: [CMY117 or | K4 | 4 | 1 | 12 |

| | CMY101 and CMY102] and [CMY127 or CMY101 and CMY102] | | | | |
|---|---|---|---|---|---|
| HSC362 | DECIDUOUS_POMOLOGY_362 Prerequisite/s: [HSC261] and [PPK251] | S2 | 2 | 0.5 | 14 |
| LIR421 | AGRICULTURAL_ENGINEERING_421 | S2 | 3 | 2 | 8 |
| PGW361 | EXPERIMENTAL_DESIGN_&_ANAL.361 Prerequisite/s: [BME161] and [BME162] | S2 | 2 | 0.5 | 14 |
| | Totals for compulsory modules in the third/fourth quarter | | 13/13 | 4.5/4.5 | 37/37 |

Electives: Any subject(s) in the Faculty of Natural and Agricultural Sciences after consultation with the head of department(s).

**Compulsory credits = (152) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME210 | BIOMETRY_210 Prerequisite/s: [BME120] | S1 | 4 | 1 | 24 |
| GLY151 | INTRODUCTORY_GEOLOGY_151 Prerequisite/s: [Par 1.2] | K1 | 4 | 1 | 8 |
| GLY152 | PHYSICAL_GEOLOGY_152 Prerequisite/s: [Par 1.2] | K2 | 4 | 1 | 8 |
| LBU410 | LAND_USE_PLANNING_410 Prerequisite/s: [GKD250] | S1 | 3 | 1 | 14 |
| LKM450 | ENVIRONMENTAL_BIOPHYSICS_450 | S1 | 2 | 0.5 | 16 |
| OKW413 | WEED_SCIENCE_413 | S1 | 2 | 0.5 | 14 |
| PGW400 | SEMINAR_400 | J1 | 3 | 0 | 10 |
| | Totals for compulsory modules in the first/second quarter | | 18/18 | 4/4 | 47/47 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| APS461 | CROP_PHYSIOLOGY_461 Prerequisite/s: [GKD250] and [GKD260] and [HSC252] and [HSC261] and [PGW352] | S2 | 2 | 0.5 | 14 |
| GKD460 | ENVIRONMENTAL_MANAGEMENT_460 Prerequisite/s: [GKD250] and [GKD350] | S2 | 2 | 1 | 14 |
| GLY161 | HISTORICAL_GEOLOGY_161 Prerequisite/s: [Par 1.2] | K3 | 4 | 1 | 8 |
| LBU420 | PROJECT:LAND_USE_PLANNING_420 | S2 | 3 | 1 | 14 |
| PGW400 | SEMINAR_400 | J1 | 3 | 0 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/10 | 3.5/2.5 | 34/26 |

Electives: GLY162 and any module(s) in the Faculty of Natural and Agricultural Sciences after consultation with the head of department.

**Compulsory credits = (154) Elective credits = (0)**

**A minimum of (614) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BInstAgrar Crop Protection** | **MBY** | **03136062** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BLG150 | INTRODUCTORY_PLANT_BIOLOGY_150 | S1 | 3 | 1 | 16 |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| SCI150 | NATURAL_SCIENCE_150 | S1 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 3/3 | 29/29 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGC161 | INTRODUCTORY_AGRICULTURE_161 | S2 | 2 | 0.5 | 8 |
| BLG160 | INTRODUCTORY_ANIMAL_BIOL.160 | S2 | 3 | 1 | 16 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| SCI160 | NATURAL_SCIENCE_160 Prerequisite/s: [SCI150] | S2 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 21/21 | 4.5/4.5 | 32/32 |

STK110 can be taken instead of WTW101. Students who do not comply with the admission requirements for STK110 should register for STK113 and STK123.

**Compulsory credits = (122) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| MBY251 | GROWTH_DIVERS.&CONTROL/BAC.251 Prerequisite/s: [MBY161 GS] | S1 | 2 | 1 | 12 |
| PLG251 | INTRO._CROP_PROTECTION_251 | S1 | 2 | 1 | 12 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| SCI153 | ACADEMIC_PROFICIENCY_153 | K1 | 0 | 1 | 6 |
| | Totals for compulsory modules in the first/second quarter | | 12/12 | 4.5/3.5 | 36/30 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| GKD260 | SOIL_FERTIL.&_PLANT_NUTRIT.260 Prerequisite/s: [GKD250 GS] | S2 | 3 | 1 | 12 |
| GTS124 | GENETICS_124 Prerequisite/s: [This module may not be taken by students registered for a BSc degree.] | S2 | 4 | 1 | 16 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |

| PLG261 | EPIDEMIOLOGY_261 | S2 | 2 | 1 | 8 |
|---|---|---|---|---|---|
| SEM161 | SEMINAR_161 | K3 | 3 | 0 | 4 |
| | Totals for compulsory modules in the third/fourth quarter | | 19/16 | 4/4 | 36/32 |

**Compulsory credits = (134) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGR313 | PRIMARY_FOOD_CROPS_313 | S1 | 2 | 0.5 | 14 |
| HSC351 | NURSERY_MANAGEMENT_351 | S1 | 2 | 0.5 | 14 |
| MBY352 | ENVIRONMENTAL_MICROBIOLOGY_352 Prerequisite/s: [MBY161] | S1 | 2 | 1 | 18 |
| PLG351 | GENERAL_PLANTPATHOLOGY_351 | S1 | 2 | 1 | 18 |
| ZEN355 | INSECT_DIVERSITY_355 | K2 | 4 | 2 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 6/12 | 2.5/5 | 25/50 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| HSC261 | TREE_GROWTH_&_DEVELOPMENT_261 Prerequisite/s: [GKD250] and [GKD260 #] and [HSC252] | K3 | 2 | 0.5 | 6 |
| LKM262 | AGRICULTURAL_CLIMATOLOGY_262 | S2 | 2 | 0.5 | 12 |
| MBY261 | GROWTH_ACT.&_CONTROL/FUNGI_261 Prerequisite/s: [MBY161] | S2 | 2 | 1 | 12 |
| PGW361 | EXPERIMENTAL_DESIGN_&_ANAL.361 Prerequisite/s: [BME161] and [BME162] | S2 | 2 | 0.5 | 14 |
| PLG364 | HOST_PATHOGEN_INTERACTIONS_364 | S2 | 2 | 1 | 18 |
| ZEN365 | INSECT_PEST_MANAGEMENT_365 | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 10/12 | 3.5/5 | 34/46 |

**Compulsory credits = (155) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGV410 | AGRARIAN_EXTENSION_410 | S1 | 2 | 0 | 20 |
| ARD480 | AFRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| OKW413 | WEED_SCIENCE_413 | S1 | 2 | 0.5 | 14 |
| PGW400 | SEMINAR_400 | J1 | 3 | 0 | 10 |
| PLG462 | RESEARCH_PROJECT_462 | J1 | 1 | 1 | 10 |
| | Totals for compulsory modules in the first/second quarter | | 10/10 | 1.5/1.5 | 37/37 |

Possible optional modules credits (14). Possible optional modules from the following: HSC350 or HSC450.

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGV421 | COMMUNICATION_421 | S2 | 2 | 0 | 20 |
| ARD480 | AFRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| PGW400 | SEMINAR_400 | J1 | 3 | 0 | 10 |
| PLG363 | PLANT_DISEASE_CONTROL_363 | S2 | 2 | 1 | 18 |
| PLG461 | NURSERY_&_SEED_PATHOLOGY_461 | S2 | 1 | 0.5 | 10 |
| PLG462 | RESEARCH_PROJECT_462 | J1 | 1 | 1 | 10 |

| Totals for compulsory modules in the third/fourth quarter | 11/11 | 2.5/2.5 | 44/44 |
|---|---|---|---|

| |
|---|
| **Compulsory credits = (162) Elective credits = (14)** |

| |
|---|
| **A minimum of (587) credits is required to obtain the degree.** |

| Field of study | Dept | Code |
|---|---|---|
| **BInstAgrar Food Production and Processing** | **VDW** | **03136072** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BLG150 | INTRODUCTORY_PLANT_BIOLOGY_150 | S1 | 3 | 1 | 16 |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| SCI150 | NATURAL_SCIENCE_150 | S1 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 3/3 | 29/29 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGC161 | INTRODUCTORY_AGRICULTURE_161 | S2 | 2 | 0.5 | 8 |
| BLG160 | INTRODUCTORY_ANIMAL_BIOL.160 | S2 | 3 | 1 | 16 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| SCI160 | NATURAL_SCIENCE_160 Prerequisite/s: [SCI150] | S2 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 21/21 | 4.5/4.5 | 32/32 |

STK110 can be taken instead of WTW101. Students not complying with minimum requirements for STK110 must register for STK113 and STK123.

| |
|---|
| **Compulsory credits = (122) Elective credits = (0)** |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS ] or [TDH] | S1 | 3 | 1 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| OBS156 | BUSINESS_MANAGEMENT_156 | K2 | 3 | 0 | 5 |
| PLG251 | INTRO._CROP_PROTECTION_251 | S1 | 2 | 1 | 12 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: | S1 | 2 | 0.5 | 12 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| | [BOT161 or BLG150] | | | | |
| VDG255 | NUTRITION_255 | K1 | 3 | 0 | 6 |
| VDG256 | NUTRITION_256 | K2 | 3 | 0 | 6 |
| VKU210 | ANIMAL_SCIENCE_210 | S1 | 1 | 0.5 | 6 |
| | Totals for compulsory modules in the first/second quarter | | 16/19 | 3.5/3.5 | 39/44 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| LBU260 | AGROCLIMATOLOGY_260 | S2 | 3 | 1 | 12 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| RHD264 | RURAL_HOUSEHOLD_DEVELOPM._264 | S2 | 1 | 2 | 10 |
| SEM161 | SEMINAR_161 | K3 | 3 | 0 | 4 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/11 | 4/4 | 29/25 |

**Compulsory credits = (137) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| AGR313 | PRIMARY_FOOD_CROPS_313 | S1 | 2 | 0.5 | 14 |
| AGV410 | AGRARIAN_EXTENSION_410 | S1 | 2 | 0 | 20 |
| APZ311 | LIVESTOCK_BREEDING_311 Prerequisite/s: [TDH] | S1 | 2 | 0.5 | 10 |
| LIR410 | AGRICULTURAL_ENGINEERING_410 | S1 | 2 | 2 | 8 |
| OBS355 | ENTREPRENEURSHIP_355 | K1 | 3 | 0 | 10 |
| OBS356 | ENTREPRENEURSHIP_356 | K2 | 3 | 0 | 10 |
| | Totals for compulsory modules in the first/second quarter | | 11/11 | 3/3 | 36/36 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| AGV421 | COMMUNICATION_421 | S2 | 2 | 0 | 20 |
| APZ321 | LIVESTOCK_PRODUCTION_321 Prerequisite/s: [TDH] | S2 | 2 | 0 | 10 |
| LEK320 | AGRICULTURAL_ECONOMICS_320 | S2 | 3 | 2 | 18 |
| LIR422 | AGRICULTURAL_ENGINEERING_422 | S2 | 3 | 1 | 8 |
| OBS365 | ENTREPRENEURSHIP_365 | K3 | 3 | 0 | 10 |
| OBS366 | ENTREPRENEURSHIP_366 | K4 | 3 | 0 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | 13/13 | 3/3 | 38/38 |

**Compulsory credits = (148) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ARD480 | AGRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| ARD482 | RESOURCES_AND_DEVELOPMENT_482 | S1 | 3 | 0 | 20 |
| FPP451 | CHEM/MICROBIOL_ASPEC/FOOD_451 Prerequisite/s: [Third-year status in Food Science or TDH] | S1 | 2 | 1 | 20 |
| FPP452 | FOOD_PROC.EQUIP/OPERATIONS_452 Prerequisite/s: [Third- | S1 | 3 | 0.5 | 20 |

| | year status in Food Science or TDH] | | | | |
|---|---|---|---|---|---|
| | Totals for compulsory modules in the first/second quarter | | 10/10 | 1.5/1.5 | 40/40 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ARD480 | AGRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| FPP461 | APPRO.FOOD_PRES.VATION_TECH461 Prerequisite/s: [FST451 GS] and [FST452 GS] or [TDH] | K3 | 2 | 0.5 | 20 |
| FPP462 | APPRO.FOOD_PROCES._TECHNO._462 Prerequisite/s: [FST451 GS] and [FST452 GS] or [TDH] | K4 | 2 | 0.5 | 20 |
| FPP463 | PROJECT_463 Prerequisite/s: [FST451 GS] and [FST452 GS] or [TDH] | S2 | 2 | 0.5 | 20 |
| | Totals for compulsory modules in the third/fourth quarter | | 6/6 | 1/1 | 40/40 |
| | | | | | |
| | **Compulsory credits = (160) Elective credits = (0)** | | | | |
| | | | | | |

**A minimum of (567) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BInstAgrar Land-use Planning** | **PGW** | **03136051** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BLG150 | INTRODUCTORY_PLANT_BIOLOGY_150 | S1 | 3 | 1 | 16 |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| SCI150 | NATURAL_SCIENCE_150 | S1 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 3/3 | 29/29 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGC161 | INTRODUCTORY_AGRICULTURE_161 | S2 | 2 | 0.5 | 8 |
| BLG160 | INTRODUCTORY_ANIMAL_BIOL.160 | S2 | 3 | 1 | 16 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| SCI160 | NATURAL_SCIENCE_160 Prerequisite/s: [SCI150] | S2 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 21/21 | 4.5/4.5 | 32/32 |

STK110 can be taken instead of WTW101. Students who do not comply with the admission requirements for STK110 should register for STK113 and STK123.

| | | |
|---|---|---|
| **Compulsory credits = (122) Elective credits = (0)** | | |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS ] or [TDH] | S1 | 3 | 1 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| PLG251 | INTRO._CROP_PROTECTION_251 | S1 | 2 | 1 | 12 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| WDE210 | VELD_MANAGEMENT_PRACTICES_210 | S1 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/14 | 3.5/3.5 | 36/36 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| APZ221 | PRODUCTION_PHYSIOLOGY_221 | S2 | 3 | 0.5 | 12 |
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| GKD260 | SOIL_FERTIL.&_PLANT_NUTRIT.260 Prerequisite/s: [GKD250 GS] | S2 | 3 | 1 | 12 |
| LBU260 | AGROCLIMATOLOGY_260 | S2 | 3 | 1 | 12 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| SEM161 | SEMINAR_161 | K3 | 3 | 0 | 4 |
| | Totals for compulsory modules in the third/fourth quarter | | 19/16 | 3.5/3.5 | 36/32 |

**Compulsory credits = (140) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGR313 | PRIMARY_FOOD_CROPS_313 | S1 | 2 | 0.5 | 14 |
| AGV410 | AGRARIAN_EXTENSION_410 | S1 | 2 | 0 | 20 |
| GKD350 | SOIL_CLASSIF.&_SURVEYING_350 Prerequisite/s: [GKD250 GS] | S1 | 2 | 1 | 14 |
| PLG351 | GENERAL_PLANTPATHOLOGY_351 | S1 | 2 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 2.5/2.5 | 33/33 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGR361 | INDUSTRIAL_CROPS_361 Prerequisite/s: [HSC252] and [PPK251] | S2 | 2 | 0.5 | 14 |
| AGV421 | COMMUNICATION_421 | S2 | 2 | 0 | 20 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/4 | 0.5/0.5 | 17/17 |

Electives: Any subject(s) in the Faculty of Natural and Agricultural Sciences after consultation with the heads of department.

**Compulsory credits = (100) Elective credits = (35)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|

| ARD480 | AGRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| ARD482 | RESOURCES_AND_DEVELOPMENT_482 | S1 | 3 | 0 | 20 |
| LBU410 | LAND_USE_PLANNING_410 Prerequisite/s: [GKD250] | S1 | 3 | 1 | 14 |
| Totals for compulsory modules in the first/second quarter | | | 8/8 | 1/1 | 27/27 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ARD480 | AGRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| GKD460 | ENVIRONMENTAL_MANAGEMENT_460 Prerequisite/s: [GKD250] and [GKD350] | S2 | 2 | 1 | 14 |
| GKD480 | RESOURCE_SURVEYS_480 Prerequisite/s: [GKD250] and [GKD350] | S2 | 3 | 1 | 14 |
| LBU420 | PROJECT:LAND_USE_PLANNING_420 | S2 | 3 | 1 | 14 |
| WDE460 | PRODSYS_V1:INT/PLA&ANIMPRO_460 | S2 | 2 | 0.5 | 12 |
| Totals for compulsory modules in the third/fourth quarter | | | 12/12 | 3.5/3.5 | 37/37 |

Electives: Any subject(s) in the Faculty of Natural and Agricultural Sciences after consultation with the heads of department.

**Compulsory credits = (128) Elective credits = (32)**

**A minimum of (557) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BInstAgrar Plant Production** | **PGW** | **03136063** |

Students who want to enroll for the main subjects: Agronomy, Horticulture or Pasture Science, should register for the BInstAgrar Plant Production degree.

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BLG150 | INTRODUCTORY_PLANT_BIOLOGY_150 | S1 | 3 | 1 | 16 |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| SCI150 | NATURAL_SCIENCE_150 | S1 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| Totals for compulsory modules in the first/second quarter | | | 20/20 | 3/3 | 29/29 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGC161 | INTRODUCTORY_AGRICULTURE_161 | S2 | 2 | 0.5 | 8 |
| BLG160 | INTRODUCTORY_ANIMAL_BIOL.160 | S2 | 3 | 1 | 16 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| SCI160 | NATURAL_SCIENCE_160 Prerequisite/s: [SCI150] | S2 | 6 | 1 | 12 |

| | | | | | |
|---|---|---|---|---|---|
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 21/21 | 4.5/4.5 | 32/32 |

STK110 can be taken instead of WTW101. Students not complying with minimum requirements for STK110 must register for STK113 and STK123.

### Compulsory credits = (122) Elective credits = (0)

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS ] or [TDH] | S1 | 3 | 1 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| PLG251 | INTRO._CROP_PROTECTION_251 | S1 | 2 | 1 | 12 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| WDE210 | VELD_MANAGEMENT_PRACTICES_210 | S1 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 14/14 | 3.5/3.5 | 36/36 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| APZ221 | PRODUCTION_PHYSIOLOGY_221 | S2 | 3 | 0.5 | 12 |
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| GKD260 | SOIL_FERTIL.&_PLANT_NUTRIT.260 Prerequisite/s: [GKD250 GS] | S2 | 3 | 1 | 12 |
| LBU260 | AGROCLIMATOLOGY_260 | S2 | 3 | 1 | 12 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| SEM161 | SEMINAR_161 | K3 | 3 | 0 | 4 |
| | Totals for compulsory modules in the third/fourth quarter | | 19/16 | 3.5/3.5 | 36/32 |

### Compulsory credits = (140) Elective credits = (0)

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGV410 | AGRARIAN_EXTENSION_410 | S1 | 2 | 0 | 20 |
| GKD350 | SOIL_CLASSIF.&_SURVEYING_350 Prerequisite/s: [GKD250 GS] | S1 | 2 | 1 | 14 |
| | Totals for compulsory modules in the first/second quarter | | 4/4 | 1/1 | 17/17 |

Electives: HSC350, HSC352, AGR313, WDE350, APZ311, APZ313.

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGV421 | COMMUNICATION_421 | S2 | 2 | 0 | 20 |
| ZEN365 | INSECT_PEST_MANAGEMENT_365 | K4 | 4 | 2 | 18 |
| | Totals for compulsory modules in the third/fourth quarter | | 2/6 | 0/2 | 10/28 |

Electives: AGR361, HSC261, APZ321, APZ324, APZ325. Pasture option still needs one module and

the Agronomy/Horticulture option needs three modules that can be made up of any modules(s) in the Faculty of Natural and Agricultural Sciences after consultation with the heads of department.

Electives: HSC362, APZ321, APZ324, APZ325. Agronomy/Horticulture option needs one module that can be made up of any module in the Faculty of Natural and Agricultural Sciences after consultation with the heads of department.

**Compulsory credits = (72) Elective credits = (72)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | Ppw | Crdt |
|------|------|-----|-----|-----|------|
| ARD480 | AGRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| ARD482 | RESOURCES_AND_DEVELOPMENT_482 | S1 | 3 | 0 | 20 |
| LBU410 | LAND_USE_PLANNING_410 Prerequisite/s: [GKD250] | S1 | 3 | 1 | 14 |
| OKW413 | WEED_SCIENCE_413 | S1 | 2 | 0.5 | 14 |
| | Totals for compulsory modules in the first/second quarter | | 10/10 | 1.5/1.5 | 34/34 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | Ppw | Crdt |
|------|------|-----|-----|-----|------|
| AGR460 | PROD.SYST.11:_VEGETABLE_CR.460 | S2 | 2 | 0.5 | 12 |
| ARD480 | AGRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| GKD460 | ENVIRONMENTAL_MANAGEMENT_460 Prerequisite/s: [GKD250] and [GKD350] | S2 | 2 | 1 | 14 |
| GKD480 | RESOURCE_SURVEYS_480 Prerequisite/s: [GKD250] and [GKD350] | S2 | 3 | 1 | 14 |
| LBU420 | PROJECT:LAND_USE_PLANNING_420 | S2 | 3 | 1 | 14 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/12 | 3.5/3.5 | 37/37 |

Electives: HSC460, WDE460, WDE481 or any  module(s) in the Faculty of Natural and Agricultural Sciences after consultation with the heads of department.

**Compulsory credits = (142) Elective credits = (18)**

**A minimum of (566) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BInstAgrar Rural Development Management** | **LEK** | **03136082** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BLG150 | INTRODUCTORY_PLANT_BIOLOGY_150 | S1 | 3 | 1 | 16 |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| SCI150 | NATURAL_SCIENCE_150 | S1 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 3/3 | 29/29 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|

| AGC161 | INTRODUCTORY_AGRICULTURE_161 | S2 | 2 | 0.5 | 8 |
|---|---|---|---|---|---|
| BLG160 | INTRODUCTORY_ANIMAL_BIOL.160 | S2 | 3 | 1 | 16 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| SCI160 | NATURAL_SCIENCE_160 Prerequisite/s: [SCI150] | S2 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 21/21 | 4.5/4.5 | 32/32 |

STK110 can be taken instead of WTW101. Students who do not comply with the admission requirements for STK110, should register for STK113 and STK123.

**Compulsory credits = (122) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| VKU210 | ANIMAL_SCIENCE_210 | S1 | 1 | 0.5 | 6 |
| WDE210 | VELD_MANAGEMENT_PRACTICES_210 | S1 | 2 | 0.5 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 13/13 | 3/3 | 33/33 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| SEM161 | SEMINAR_161 | K3 | 3 | 0 | 4 |
| | Totals for compulsory modules in the third/fourth quarter | | 10/7 | 1/1 | 18/14 |

Electives can be chosen from: APZ221, GKD223, RHD264, HSC261 and other modules in consultation with the head of department.

**Compulsory credits = (98) Elective credits = (46)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| AGV410 | AGRARIAN_EXTENSION_410 | S1 | 2 | 0 | 20 |
| LEK310 | AGRICULTURAL_ECONOMICS_310 Prerequisite/s: [LEK251 or EKN110] and [LEK252 or EKN120] | S1 | 3 | 0 | 12 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| LIR410 | AGRICULTURAL_ENGINEERING_410 | S1 | 2 | 2 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 7/7 | 2/2 | 20/20 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| AGV421 | COMMUNICATION_421 | S2 | 2 | 0 | 20 |
| LEK320 | AGRICULTURAL_ECONOMICS_320 | S2 | 3 | 2 | 18 |
| LIR422 | AGRICULTURAL_ENGINEERING_422 | S2 | 3 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 3/3 | 23/23 |

**Compulsory credits = (86) Elective credits = (66)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ARD480 | AGRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| ARD482 | RESOURCES_AND_DEVELOPMENT_482 | S1 | 3 | 0 | 20 |
| LBU410 | LAND_USE_PLANNING_410 Prerequisite/s: [GKD250] | S1 | 3 | 1 | 14 |
| LEK485 | PROJECT_PLANNING_&_APPR._485 | S1 | 3 | 0 | 20 |
| | Totals for compulsory modules in the first/second quarter | | 11/11 | 1/1 | 37/37 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ARD480 | AGRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| FPP461 | APPRO.FOOD_PRES.VATION_TECH461 Prerequisite/s: [FST451 GS] and [FST452 GS ] or [TDH] | K3 | 2 | 0.5 | 20 |
| LEK424 | RESOURCE_ECONOMICS_424 Prerequisite/s: [LEK251] and [LEK252] | K4 | 3 | 0 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | 4/5 | 0.5/0 | 30/20 |

**Compulsory credits = (124) Elective credits = (28)**

**A minimum of (570) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BInstAgrar Rural Household Development** | **VBR** | **03136064** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BLG150 | INTRODUCTORY_PLANT_BIOLOGY_150 | S1 | 3 | 1 | 16 |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| SCI150 | NATURAL_SCIENCE_150 | S1 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 20/20 | 3/3 | 29/29 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| AGC161 | INTRODUCTORY_AGRICULTURE_161 | S2 | 2 | 0.5 | 8 |

| | | | | | |
|---|---|---|---|---|---|
| BLG160 | INTRODUCTORY_ANIMAL_BIOL.160 | S2 | 3 | 1 | 16 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| MBY161 | INTRODUCTION_TO_MICROBIOLO.161 Prerequisite/s: [CMY117] and [MLB111] | S2 | 2 | 0.5 | 8 |
| SCI160 | NATURAL_SCIENCE_160 Prerequisite/s: [SCI150] | S2 | 6 | 1 | 12 |
| WTW101 | MATHEMATICS_101 Prerequisite/s: [Par 1.2] | J1 | 4 | 1 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 21/21 | 4.5/4.5 | 32/32 |

STK110 can be taken instead of WTW101. Students who do not comply with the admission requirements for STK110, should register for STK113 and STK123.

**Compulsory credits = (122) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| GKD250 | INTRODUCTORY_SOIL_SCIENCE_250 Prerequisite/s: [CMY117 GS] or [TDH] | S1 | 3 | 1 | 12 |
| HSC252 | CROP_PRODUCTION_252 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| LEK251 | INTR._TO_FARM_MANAGEMENT_251 | K1 | 3 | 0 | 6 |
| LEK252 | INTR.TO_AGRIC._PROD._ECON._252 Prerequisite/s: [LEK251] | K2 | 3 | 0 | 6 |
| PPK251 | SUSTAINABLE_PRODUCTION_SYS.251 Prerequisite/s: [BOT161 or BLG150] | S1 | 2 | 0.5 | 12 |
| VDS210 | FOODS_210 | S1 | 3 | 1 | 16 |
| VKU210 | ANIMAL_SCIENCE_210 | S1 | 1 | 0.5 | 6 |
| | Totals for compulsory modules in the first/second quarter | | 14/14 | 3.5/3.5 | 35/35 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BME120 | BIOMETRY_120 Prerequisite/s: [STK113 GS] and [STK113 GS] and [STK123 GS] and [STK123 GS] and [Or at least 40% (HG) or 50% (SG) Grade 12 Mathematics or an equivalent Mathematics achievement.] | S2 | 4 | 1 | 16 |
| KEP220 | CULTURAL_EATING_PATTERNS_220 | S2 | 3 | 0 | 8 |
| LBU260 | AGROCLIMATOLOGY_260 | S2 | 3 | 1 | 12 |
| LEK220 | AGRICULTURAL_ECONOMICS_220 Prerequisite/s: [LEK251] and [LEK252 or EKN113 and/or EKN120] | S2 | 3 | 0 | 12 |
| RHD262 | RURAL_HOUSEHOLD_DEVELOPM._262 | K4 | 2 | 1 | 4 |
| RHD264 | RURAL_HOUSEHOLD_DEVELOPM._264 | S2 | 1 | 2 | 10 |
| SEM161 | SEMINAR_161 | K3 | 3 | 0 | 4 |
| VDS221 | FOODS_221 Prerequisite/s: [VDS210] | S2 | 3 | 1 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 20/19 | 5/6 | 41/41 |

Students who have passed STK110 must register for ERG281and ERG282 instead of BME161 and BME162.

**Compulsory credits = (152) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| AGR313 | PRIMARY_FOOD_CROPS_313 | S1 | 2 | 0.5 | 14 |
| AGV410 | AGRARIAN_EXTENSION_410 | S1 | 2 | 0 | 20 |
| LIR410 | AGRICULTURAL_ENGINEERING_410 | S1 | 2 | 2 | 8 |
| RHD351 | RURAL_HOUSEHOLD_DEVELOPM._351 Prerequisite/s: [RHD264] | S1 | 4 | 1 | 18 |
| VDG255 | NUTRITION_255 | K1 | 3 | 0 | 6 |
| VDG256 | NUTRITION_256 | K2 | 3 | 0 | 6 |
| Totals for compulsory modules in the first/second quarter | | | 13/13 | 3.5/3.5 | 36/36 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| AGV421 | COMMUNICATION_421 | S2 | 2 | 0 | 20 |
| LEK320 | AGRICULTURAL_ECONOMICS_320 | S2 | 3 | 2 | 18 |
| LIR422 | AGRICULTURAL_ENGINEERING_422 | S2 | 3 | 1 | 8 |
| VDG363 | NUTRITION_363 Prerequisite/s: [VDG255] and [VDG256] | K3 | 3 | 1 | 10 |
| VDS363 | FOODS_363 Prerequisite/s: [VDS251] and [VDS252] and [VDS261] and [VDS262] | S2 | 3 | 1 | 15 |
| Totals for compulsory modules in the third/fourth quarter | | | 14/11 | 5/4 | 40.5/30.5 |

**Compulsory credits = (143) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ARD480 | AGRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| ARD482 | RESOURCES_AND_DEVELOPMENT_482 | S1 | 3 | 0 | 20 |
| RHD480 | RURAL_HOUSEHOLD_DEVELOPM._480 Prerequisite/s: [RHD351] | S1 | 3 | 1 | 20 |
| VDG483 | NUTRITION_483 Prerequisite/s: [KEP261] and [KEP262] and [VDG255] and [VDG256] and [VDG363] | S1 | 3 | 0 | 20 |
| Totals for compulsory modules in the first/second quarter | | | 11/11 | 1/1 | 40/40 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ARD480 | AGRIC.&_RURAL_DEVELOP.STUD.480 | J1 | 2 | 0 | 20 |
| FPP461 | APPRO.FOOD_PRES.VATION_TECH461 Prerequisite/s: [FST451 GS] and [FST452 GS] or [TDH] | K3 | 2 | 0.5 | 20 |
| FPP462 | APPRO.FOOD_PROCES._TECHNO._462 Prerequisite/s: [FST451 GS] and [FST452 GS] or [TDH] | K4 | 2 | 0.5 | 20 |
| FPP463 | PROJECT_463 Prerequisite/s: [FST451 GS] and [FST452 GS] or [TDH] | S2 | 2 | 0.5 | 20 |
| RHD481 | RURAL_HOUSEHOLD_DEVELOPM._481 Prerequisite/s: [RHD480] | S2 | 2 | 2 | 20 |
| Totals for compulsory modules in the third/fourth quarter | | | 8/8 | 3/3 | 50/50 |

**Compulsory credits = (180) Elective credits = (0)**

**A minimum of (597) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BCons.Sc.: Clothing: Retail Management** | **VBR** | **02130112** |

| First year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| FRK151 | FINANCIAL_ACCOUNTING_151 Prerequisite/s: [Par.1.2] | K1 | 4 | 0 | 5 |
| FRK152 | FINANCIAL_ACCOUNTING_152 Prerequisite/s: [FRK151 GS] and [Par.1.2] | K2 | 4 | 0 | 5 |
| KLR110 | CLOTHING_PRODUCTION_110 | S1 | 1 | 1 | 12 |
| KTP100 | EXPERIENTIAL_TRAINING_100 | J1 | 1 | 0 | 3 |
| OBG110 | PRINCIPLES_OF_DESIGN_110 | S1 | 2 | 1 | 12 |
| STK110 | STATISTICS_110 Prerequisite/s: [Reg1.2(j)] | S1 | 3 | 1 | 13 |
| Totals for compulsory modules in the first/second quarter | | | 18/18 | 3/3 | 36/36 |
| **First year, second semester:** | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EKN120 | ECONOMICS_120 Prerequisite/s: [EKN110 GS] | S2 | 3 | 0 | 10 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| EST120 | AESTHETICS_120 Prerequisite/s: [OBG110 GS] | S2 | 1 | 1 | 8 |
| FRK121 | FINANCIAL_ACCOUNTING_121 Prerequisite/s: [FRK151 GS] and [FRK152 GS] | S2 | 4 | 0 | 12 |
| FRK181 | FINANCIAL_ACCOUNTING_181 Prerequisite/s: [FRK151 GS] and [Par 1.2] and [Par 1.2] | S2 | 2 | 0 | 3 |
| KLR120 | CLOTHING_PRODUCTION_120 Prerequisite/s: [KLR110] | S2 | 1 | 1 | 12 |
| KTP100 | EXPERIENTIAL_TRAINING_100 | J1 | 1 | 0 | 3 |
| SEM180 | SEMINAR_180 | S2 | 2 | 0 | 6 |
| Totals for compulsory modules in the third/fourth quarter | | | 18/18 | 2/2 | 33/33 |
| | | | | | |
| **Compulsory credits = (138) Elective credits = (0)** | | | | | |
| | | | | | |
| **Second year, first semester:** | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| BDO219 | INDUSTR.AND_ORG.PSYCHOLOGY_219 | S1 | 3 | 0 | 16 |
| BEM110 | MARKETING_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| EST211 | AESTHETICS_211 Prerequisite/s: [EST120] | S1 | 2 | 1 | 10 |
| KLR210 | CLOTHING_PRODUCTION_210 Prerequisite/s: [KLR120] | S1 | 1 | 1 | 12 |
| KTP200 | EXPERIENTIAL_TRAINING_200 | J1 | 1 | 0 | 2 |
| OBS110 | BUSINESS_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| TKS210 | TEXTILES_210 | S1 | 3 | 1 | 14 |
| Totals for compulsory modules in the first/second quarter | | | 16/16 | 3/3 | 37/37 |
| **Second year, second semester:** | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| BEM161 | MARKETING_MANAGEMENT_161 | K3 | 3 | 0 | 5 |
| BEM162 | MARKETING_MANAGEMENT_162 | K4 | 3 | 0 | 5 |
| KLD220 | CLOTHING_220 | S2 | 3 | 0 | 8 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| KLD221 | CLOTHING_221 | S2 | 3 | 0 | 8 |
| KLR220 | CLOTHING_PRODUCTION_220 Prerequisite/s: [KLR120] | S2 | 0 | 1 | 6 |
| KTP200 | EXPERIENTIAL_TRAINING_200 | J1 | 1 | 0 | 2 |
| OBS120 | BUSINESS_MANAGEMENT_120 | S2 | 3 | 0 | 10 |
| TKS220 | TEXTILES_220 Prerequisite/s: [TKS210] | S2 | 3 | 1 | 14 |
| TKS221 | TEXTILES_221 Prerequisite/s: [TKS220 GS] | S2 | 0 | 1 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 16/16 | 3/3 | 32/32 |

**Compulsory credits = (138) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM251 | MARKETING_MANAGEMENT_251 | K1 | 3 | 0 | 8 |
| BEM252 | MARKETING_MANAGEMENT_252 | K2 | 3 | 0 | 8 |
| BER210 | BUSINESS_LAW_210 | S1 | 3 | 0 | 16 |
| EST310 | AESTHETICS_310 Prerequisite/s: [EST210] | S1 | 0 | 2 | 8 |
| KLR310 | CLOTHING_PRODUCTION_310 Prerequisite/s: [KLR210] | S1 | 1 | 1 | 12 |
| KTP300 | EXPERIENTIAL_TRAINING_300 | J1 | 1 | 0 | 2 |
| OBS210 | BUSINESS_MANAGEMENT_210 | S1 | 3 | 0 | 16 |
| TKS310 | TEXTILES_310 Prerequisite/s: [TKS220 GS] | S1 | 2 | 0 | 6 |
| | Totals for compulsory modules in the first/second quarter | | 13/13 | 3/3 | 38/38 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM261 | MARKETING_MANAGEMENT_261 Prerequisite/s: [BEM110 GS] | K3 | 3 | 0 | 8 |
| BEM262 | MARKETING_MANAGEMENT_262 Prerequisite/s: [BEM110 GS] | K4 | 3 | 0 | 8 |
| BER220 | BUSINESS_LAW_220 | S2 | 3 | 0 | 16 |
| KLD320 | CLOTHING_320 | S2 | 4 | 0 | 12 |
| KLD321 | CLOTHING_321 Prerequisite/s: [TKS220 GS] | S2 | 2 | 0 | 6 |
| KLR320 | CLOTHING_PRODUCTION_320 Prerequisite/s: [KLR210] | S2 | 1 | 1 | 12 |
| KTP300 | EXPERIENTIAL_TRAINING_300 | J1 | 1 | 0 | 2 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/14 | 1/1 | 32/32 |

**Compulsory credits = (140) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM351 | MARKETING_MANAGEMENT_351 Prerequisite/s: [BEM110 GS or BEM161,162] | K1 | 3 | 1 | 10 |
| BEM352 | MARKETING_MANAGEMENT_352 Prerequisite/s: [BEM110 GS] | K2 | 3 | 1 | 10 |
| KLD410 | CLOTHING_410 Prerequisite/s: [ Fourth-year status] | S1 | 3 | 0 | 8 |
| KLD411 | PROJECT_CLOTHING_411 Prerequisite/s: [Fourth-year status] | S1 | 2 | 0 | 6 |
| KTP400 | EXPERIENTIAL_TRAINING_400 Prerequisite/s: [Fourth-year status] | J1 | 0 | 2 | 10 |
| KTP401 | EXPERIENTIAL_TRAINING_401 | J1 | 1 | 0 | 2 |
| OBS310 | BUSINESS_MANAGEMENT_310 | S1 | 4 | 0 | 20 |
| | Totals for compulsory modules in the first/second quarter | | 13/13 | 3/3 | 33/33 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM361 | MARKETING_MANAGEMENT_361 | K3 | 3 | 1 | 10 |
| BEM362 | MARKETING_MANAGEMENT_362 | K4 | 3 | 1 | 10 |
| KLD420 | CLOTHING_420 Prerequisite/s: [Fourth-year status] | S2 | 3 | 0 | 8 |

| KLR420 | CLOTHING_PRODUCTION_420 Prerequisite/s: [EST310] and [KLR310] | S2 | 1 | 1 | 12 |
|---|---|---|---|---|---|
| KTP400 | EXPERIENTIAL_TRAINING_400 Prerequisite/s: [Fourth-year status] | J1 | 0 | 2 | 10 |
| KTP401 | EXPERIENTIAL_TRAINING_401 | J1 | 1 | 0 | 2 |
| OBS320 | BUSINESS_MANAGEMENT_320 | S2 | 3 | 0 | 20 |
| TKS420 | TEXTILES_420 Prerequisite/s: [TKS210] and [TKS220] and [TKS221] | S2 | 3 | 0 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 14/14 | 4/4 | 40/40 |

**Compulsory credits = (146) Elective credits = (0)**

**A minimum of (562) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| BCons.Sc.: Clothing: Small Business Management | VBR | 02130113 |

| First year, first semester: | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| FRK151 | FINANCIAL_ACCOUNTING_151 Prerequisite/s: [Par.1.2] | K1 | 4 | 0 | 5 |
| FRK152 | FINANCIAL_ACCOUNTING_152 Prerequisite/s: [FRK151 GS] and [Par.1.2] | K2 | 4 | 0 | 5 |
| KLR110 | CLOTHING_PRODUCTION_110 | S1 | 1 | 1 | 12 |
| KTP100 | EXPERIENTIAL_TRAINING_100 | J1 | 1 | 0 | 3 |
| OBG110 | PRINCIPLES_OF_DESIGN_110 | S1 | 2 | 1 | 12 |
| STK110 | STATISTICS_110 Prerequisite/s: [ Reg1.2(j)] | S1 | 3 | 1 | 13 |
| Totals for compulsory modules in the first/second quarter | | | 18/18 | 3/3 | 36/36 |
| First year, second semester: | | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EKN120 | ECONOMICS_120 Prerequisite/s: [EKN110 GS] | S2 | 3 | 0 | 10 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| EST120 | AESTHETICS_120 Prerequisite/s: [OBG110 GS] | S2 | 1 | 1 | 8 |
| FRK121 | FINANCIAL_ACCOUNTING_121 Prerequisite/s: [FRK151 GS] and [FRK152 GS] | S2 | 4 | 0 | 12 |
| FRK181 | FINANCIAL_ACCOUNTING_181 Prerequisite/s: [FRK151 GS] and [Par 1.2] and [Par 1.2] | S2 | 2 | 0 | 3 |
| KLR120 | CLOTHING_PRODUCTION_120 Prerequisite/s: [KLR110] | S2 | 1 | 1 | 12 |
| KTP100 | EXPERIENTIAL_TRAINING_100 | J1 | 1 | 0 | 3 |
| SEM180 | SEMINAR_180 | S2 | 2 | 0 | 6 |
| Totals for compulsory modules in the third/fourth quarter | | | 18/18 | 2/2 | 33/33 |

**Compulsory credits = (138) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BDO181 | INDUSTR._&_ORG._PSYCHOLOGY_181 | J1 | 4 | 0 | 2.5 |
| BEM110 | MARKETING_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| EST211 | AESTHETICS_211 Prerequisite/s: [EST120] | S1 | 2 | 1 | 10 |
| KLR210 | CLOTHING_PRODUCTION_210 Prerequisite/s: [KLR120] | S1 | 1 | 1 | 12 |
| KTP200 | EXPERIENTIAL_TRAINING_200 | J1 | 1 | 0 | 2 |
| OBS113 | ENTREPRENEURSHIP_113 | S1 | 3 | 0 | 10 |
| TKS210 | TEXTILES_210 | S1 | 3 | 1 | 14 |
| | Totals for compulsory modules in the first/second quarter | | 17/17 | 3/3 | 30.25/30.25 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BDO181 | INDUSTR._&_ORG._PSYCHOLOGY_181 | J1 | 4 | 0 | 2.5 |
| BEM161 | MARKETING_MANAGEMENT_161 | K3 | 3 | 0 | 5 |
| BEM162 | MARKETING_MANAGEMENT_162 | K4 | 3 | 0 | 5 |
| KLD220 | CLOTHING_220 | S2 | 3 | 0 | 8 |
| KLD221 | CLOTHING_221 | S2 | 3 | 0 | 8 |
| KLR220 | CLOTHING_PRODUCTION_220 Prerequisite/s: [KLR120] | S2 | 0 | 1 | 6 |
| KTP200 | EXPERIENTIAL_TRAINING_200 | J1 | 1 | 0 | 2 |
| OBS123 | ENTREPRENEURSHIP_123 | S2 | 3 | 0 | 10 |
| TKS220 | TEXTILES_220 Prerequisite/s: [TKS210] | S2 | 3 | 1 | 14 |
| TKS221 | TEXTILES_221 Prerequisite/s: [TKS220 GS] | S2 | 0 | 1 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 20/20 | 3/3 | 33.25/33.25 |

**Compulsory credits = (127) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM251 | MARKETING_MANAGEMENT_251 | K1 | 3 | 0 | 8 |
| BEM252 | MARKETING_MANAGEMENT_252 | K2 | 3 | 0 | 8 |
| BER210 | BUSINESS_LAW_210 | S1 | 3 | 0 | 16 |
| EST310 | AESTHETICS_310 Prerequisite/s: [EST210] | S1 | 0 | 2 | 8 |
| KLR310 | CLOTHING_PRODUCTION_310 Prerequisite/s: [KLR210] | S1 | 1 | 1 | 12 |
| KTP300 | EXPERIENTIAL_TRAINING_300 | J1 | 1 | 0 | 2 |
| OBS213 | ENTREPRENEURSHIP_213 | S1 | 3 | 0 | 16 |
| TKS310 | TEXTILES_310 Prerequisite/s: [TKS220 GS] | S1 | 2 | 0 | 6 |
| | Totals for compulsory modules in the first/second quarter | | 13/13 | 3/3 | 38/38 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM261 | MARKETING_MANAGEMENT_261 Prerequisite/s: [BEM110 GS] | K3 | 3 | 0 | 8 |
| BEM262 | MARKETING_MANAGEMENT_262 Prerequisite/s: [BEM110 GS] | K4 | 3 | 0 | 8 |
| BER220 | BUSINESS_LAW_220 | S2 | 3 | 0 | 16 |
| KLD320 | CLOTHING_320 | S2 | 4 | 0 | 12 |
| KLD321 | CLOTHING_321 Prerequisite/s: [TKS220 GS] | S2 | 2 | 0 | 6 |
| KLR320 | CLOTHING_PRODUCTION_320 Prerequisite/s: [KLR210] | S2 | 1 | 1 | 12 |
| KTP300 | EXPERIENTIAL_TRAINING_300 | J1 | 1 | 0 | 2 |
| OBS223 | ENTREPRENEURSHIP_223 | S2 | 3 | 0 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 17/17 | 1/1 | 40/40 |

| Compulsory credits = (156) Elective credits = (0) |||||
|---|---|---|---|---|
| | | | | |
| | | | | |
| **Fourth year, first semester:** | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| BEM351 | MARKETING_MANAGEMENT_351 Prerequisite/s: [BEM110 GS or BEM161,162] | K1 | 3 | 1 | 10 |
| BEM352 | MARKETING_MANAGEMENT_352 Prerequisite/s: [BEM110 GS] | K2 | 3 | 1 | 10 |
| KLD411 | PROJECT_CLOTHING_411 Prerequisite/s: [Fourth-year status] | S1 | 2 | 0 | 6 |
| KLD412 | CLOTHING_412 Prerequisite/s: [Fourth-year status] | S1 | 3 | 0 | 8 |
| KLR410 | CLOTHING_PRODUCTION_410 Prerequisite/s: [KLR210] | S1 | 1 | 1 | 12 |
| KTP400 | EXPERIENTIAL_TRAINING_400 Prerequisite/s: [Fourth-year status] | J1 | 0 | 2 | 10 |
| KTP401 | EXPERIENTIAL_TRAINING_401 | J1 | 1 | 0 | 2 |
| OBS313 | ENTREPRENEURSHIP_313 | S1 | 3 | 0 | 20 |
| Totals for compulsory modules in the first/second quarter | | | 13/13 | 4/4 | 39/39 |
| **Fourth year, second semester:** | | | | |
| Code | Name | Qrt | lpw | ppw | Crdt |
| BEM361 | MARKETING_MANAGEMENT_361 | K3 | 3 | 1 | 10 |
| BEM362 | MARKETING_MANAGEMENT_362 | K4 | 3 | 1 | 10 |
| KLD421 | CLOTHING_421 Prerequisite/s: [Fourth-year status] | S2 | 3 | 0 | 8 |
| KLR420 | CLOTHING_PRODUCTION_420 Prerequisite/s: [EST310] and [KLR310] | S2 | 1 | 1 | 12 |
| KTP400 | EXPERIENTIAL_TRAINING_400 Prerequisite/s: [Fourth-year status] | J1 | 0 | 2 | 10 |
| KTP401 | EXPERIENTIAL_TRAINING_401 | J1 | 1 | 0 | 2 |
| OBS323 | ENTREPRENEURSHIP_323 | S2 | 3 | 0 | 20 |
| TKS420 | TEXTILES_420 Prerequisite/s: [TKS210] and [TKS220] and [TKS221] | S2 | 3 | 0 | 8 |
| Totals for compulsory modules in the third/fourth quarter | | | 14/14 | 4/4 | 40/40 |
| | | | | | |
| Compulsory credits = (158) Elective credits = (0) ||||||
| | | | | | |
| **A minimum of (579) credits is required to obtain the degree.** ||||||

| Field of study | Dept | Code |
|---|---|---|
| **BCons.Sc.: Foods: Retail Management** | **VBR** | **02130114** |

| **First year, first semester:** | | | | | |
|---|---|---|---|---|---|
| Code | Name | Qrt | lpw | ppw | Crdt |
| BEM110 | MARKETING_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| OBG110 | PRINCIPLES_OF_DESIGN_110 | S1 | 2 | 1 | 12 |
| OBS110 | BUSINESS_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| STK110 | STATISTICS_110 Prerequisite/s: [Reg1.2(j)] | S1 | 3 | 1 | 13 |
| VDS110 | FOODS_110 | S1 | 3 | 0 | 8 |
| Totals for compulsory modules in the first/second quarter | | | 21/21 | 2/2 | 37.5/37.5 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM161 | MARKETING_MANAGEMENT_161 | K3 | 3 | 0 | 5 |
| BEM162 | MARKETING_MANAGEMENT_162 | K4 | 3 | 0 | 5 |
| BLG260 | GENERAL_MICROBIOLOGY_260 | K3 | 4 | 1 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EKN120 | ECONOMICS_120 Prerequisite/s: [EKN110 GS] | S2 | 3 | 0 | 10 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| OBS120 | BUSINESS_MANAGEMENT_120 | S2 | 3 | 0 | 10 |
| SEM180 | SEMINAR_180 | S2 | 2 | 0 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 19/15 | 1/0 | 32/24 |

**Compulsory credits = (131) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM251 | MARKETING_MANAGEMENT_251 | K1 | 3 | 0 | 8 |
| BEM252 | MARKETING_MANAGEMENT_252 | K2 | 3 | 0 | 8 |
| FRK151 | FINANCIAL_ACCOUNTING_151 Prerequisite/s: [Par.1.2] | K1 | 4 | 0 | 5 |
| FRK152 | FINANCIAL_ACCOUNTING_152 Prerequisite/s: [FRK151 GS] and [Par.1.2] | K2 | 4 | 0 | 5 |
| OBS210 | BUSINESS_MANAGEMENT_210 | S1 | 3 | 0 | 16 |
| OPI280 | EXPER._TRAINING_IN_INDUST._280 | J1 | 1 | 0 | 2.5 |
| VDS210 | FOODS_210 | S1 | 3 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 14/14 | 1/1 | 30.25/30.25 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM261 | MARKETING_MANAGEMENT_261 Prerequisite/s: [BEM110 GS] | K3 | 3 | 0 | 8 |
| BEM262 | MARKETING_MANAGEMENT_262 Prerequisite/s: [BEM110 GS] | K4 | 3 | 0 | 8 |
| FRK121 | FINANCIAL_ACCOUNTING_121 Prerequisite/s: [FRK151 GS] and [FRK152 GS] | S2 | 4 | 0 | 12 |
| FRK181 | FINANCIAL_ACCOUNTING_181 Prerequisite/s: [FRK151 GS] and [Par 1.2] and [Par 1.2] | S2 | 2 | 0 | 3 |
| KEP220 | CULTURAL_EATING_PATTERNS_220 | S2 | 3 | 0 | 8 |
| OPI280 | EXPER._TRAINING_IN_INDUST._280 | J1 | 1 | 0 | 2.5 |
| VDG220 | NUTRITION_220 | S2 | 3 | 0 | 8 |
| VDS221 | FOODS_221 Prerequisite/s: [VDS210] | S2 | 3 | 1 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 19/19 | 1/1 | 32.75/32.75 |

**Compulsory credits = (126) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|

| ABR311 | LABOUR_LAW_311 | S1 | 3 | 0 | 20 |
|---|---|---|---|---|---|
| OBS310 | BUSINESS_MANAGEMENT_310 | S1 | 4 | 0 | 20 |
| OPI380 | EXPER._TRAINING_IN_INDUST._380 | J1 | 1 | 0 | 2.5 |
| VDG310 | NUTRITION_310 Prerequisite/s: [FSG110 or VDG220] and [FSG120 or VDG163] | S1 | 3 | 1 | 14 |
| VDS310 | FOODS_310 Prerequisite/s: [VDS210] and [VDS221] | S1 | 3 | 1 | 16 |
| VDS353 | FOODS_353 Prerequisite/s: [VDS220] and [VDS221] | K1 | 3 | 1 | 8 |
| VDS354 | FOODS_354 | K2 | 3 | 0 | 4 |
| | Totals for compulsory modules in the first/second quarter | | 17/17 | 3/2 | 44.25/40.25 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ABV320 | LABOUR_RELATIONS_320 | S2 | 3 | 0 | 20 |
| OPI380 | EXPER._TRAINING_IN_INDUST._380 | J1 | 1 | 0 | 2.5 |
| VDG320 | NUTRITION_320 Prerequisite/s: [VDG310] | S2 | 3 | 1 | 14 |
| VDS320 | FOODS_320 Prerequisite/s: [KEP220] and [KEP261] and [VDS220] and [VDS221] | S2 | 5 | 2 | 30 |
| | Totals for compulsory modules in the third/fourth quarter | | 12/12 | 3/3 | 33.25/33.25 |

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**Compulsory credits = (151) Elective credits = (0)**

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**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BEM351 | MARKETING_MANAGEMENT_351 Prerequisite/s: [BEM110 GS or BEM161,162] | K1 | 3 | 1 | 10 |
| BEM352 | MARKETING_MANAGEMENT_352 Prerequisite/s: [BEM110 GS] | K2 | 3 | 1 | 10 |
| FST411 | SENSORY_ANAL.&QUAL.MAN.SYS.411 Prerequisite/s: [FST260] and [FST351] and [FST352] or [TDH] | S1 | 2 | 1 | 20 |
| OPI480 | EXPER._TRAINING_IN_INDUST._480 | J1 | 1 | 0 | 5 |
| VDB410 | FOOD_SERVICE_MANAGEMENT_410 Prerequisite/s: [VDB320] | S1 | 3 | 1 | 16 |
| VDB411 | PROJECT_FOOD_SERVICE_MANAG_411 Prerequisite/s: [VDB410 #] | S1 | 2 | 0 | 6 |
| VDS413 | FOODS_413 Prerequisite/s: [VDS310] | S1 | 3 | 1 | 24 |
| VDS415 | VISUAL_MERCHANDIS.OF_FOODS_415 | S1 | 3 | 0 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 17/17 | 4/4 | 49.5/49.5 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BEM361 | MARKETING_MANAGEMENT_361 | K3 | 3 | 1 | 10 |
| BEM362 | MARKETING_MANAGEMENT_362 | K4 | 3 | 1 | 10 |
| OPI480 | EXPER._TRAINING_IN_INDUST._480 | J1 | 1 | 0 | 5 |
| VDS422 | PROJECT_FOODS_422 Prerequisite/s: [VDS310] | S2 | 1 | 2 | 20 |
| VDS423 | FOODS_423 | S2 | 3 | 0 | 8 |
| VDS425 | PROJECT_FOODS:VISUAL_MERCH.425 Prerequisite/s: [VDS415] and [VDS423 #] | S2 | 3 | 0 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 11/11 | 3/3 | 29.5/29.5 |

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**Compulsory credits = (158) Elective credits = (0)**

| |
|---|

**A minimum of (566) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| BCons.Sc.: Hospitality Management | VBR | 02130115 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| OBG110 | PRINCIPLES_OF_DESIGN_110 | S1 | 2 | 1 | 12 |
| OBS110 | BUSINESS_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| TBE110 | TOURISM_MANAGEMENT_110 | S1 | 4 | 0 | 10 |
| VDS110 | FOODS_110 | S1 | 3 | 0 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 19/19 | 1/1 | 31/31 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BLG260 | GENERAL_MICROBIOLOGY_260 | K3 | 4 | 1 | 8 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EKN120 | ECONOMICS_120 Prerequisite/s: [EKN110 GS] | S2 | 3 | 0 | 10 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| ITW120 | INTERIOR_MERCHANDISE_120 | S2 | 2 | 1 | 12 |
| OBS120 | BUSINESS_MANAGEMENT_120 | S2 | 3 | 0 | 10 |
| SEM180 | SEMINAR_180 | S2 | 2 | 0 | 6 |
| TBE120 | TOURISM_MANAGEMENT_120 | S2 | 4 | 0 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | 22/18 | 2/1 | 38/30 |

**Compulsory credits = (130) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ABR311 | LABOUR_LAW_311 | S1 | 3 | 0 | 20 |
| OBS210 | BUSINESS_MANAGEMENT_210 | S1 | 3 | 0 | 16 |
| OPI280 | EXPER._TRAINING_IN_INDUST._280 | J1 | 1 | 0 | 2.5 |
| TKS211 | TEXTILES_211 | K1 | 3 | 1 | 7 |
| VDS210 | FOODS_210 | S1 | 3 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 13/10 | 2/1 | 34.25/27.25 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ABV320 | LABOUR_RELATIONS_320 | S2 | 3 | 0 | 20 |
| ITW261 | INTERIOR_MERCHANDISE_261 | K3 | 2 | 1 | 6 |
| KEP220 | CULTURAL_EATING_PATTERNS_220 | S2 | 3 | 0 | 8 |
| OPI280 | EXPER._TRAINING_IN_INDUST._280 | J1 | 1 | 0 | 2.5 |
| TBE220 | TOURISM_MANAGEMENT_220 | S2 | 4 | 0 | 16 |

| VDG220 | NUTRITION_220 | S2 | 3 | 0 | 8 |
|---|---|---|---|---|---|
| VDS221 | FOODS_221 Prerequisite/s: [VDS210] | S2 | 3 | 1 | 16 |
| | Totals for compulsory modules in the third/fourth quarter | | 19/17 | 2/1 | 41.25/35.25 |

**Compulsory credits = (138) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ITW310 | INTERIOR_MERCHANDISE_310 Prerequisite/s: [ITW120] and [TKS210] | S1 | 2 | 1 | 12 |
| OBS310 | BUSINESS_MANAGEMENT_310 | S1 | 4 | 0 | 20 |
| OPI380 | EXPER._TRAINING_IN_INDUST._380 | J1 | 1 | 0 | 2.5 |
| VDG310 | NUTRITION_310 Prerequisite/s: [FSG110 or VDG220] and [FSG120 or VDG163] | S1 | 3 | 1 | 14 |
| VDS354 | FOODS_354 | K2 | 3 | 0 | 4 |
| | Totals for compulsory modules in the first/second quarter | | 10/13 | 2/2 | 24.25/28.25 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| OPI380 | EXPER._TRAINING_IN_INDUST._380 | J1 | 1 | 0 | 2.5 |
| TBE320 | TOURISM_MANAGEMENT_320 | S2 | 4 | 0 | 20 |
| VDB320 | FOOD_SERVICE_MANAGEMENT_320 Prerequisite/s: [VDS320 #] | S2 | 4 | 1 | 20 |
| VDG320 | NUTRITION_320 Prerequisite/s: [VDG310] | S2 | 3 | 1 | 14 |
| VDS320 | FOODS_320 Prerequisite/s: [KEP220] and [KEP261] and [VDS220] and [VDS221] | S2 | 5 | 2 | 30 |
| | Totals for compulsory modules in the third/fourth quarter | | 17/17 | 4/4 | 43.25/43.25 |

**Compulsory credits = (139) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| OBS311 | ENTREPRENEURSHIP_311 | S1 | 3 | 0 | 20 |
| OPI480 | EXPER._TRAINING_IN_INDUST._480 | J1 | 1 | 0 | 5 |
| PGB480 | PROJECT:HOSPITALITY_MANAG._480 | J1 | 4 | 0 | 12 |
| VDB410 | FOOD_SERVICE_MANAGEMENT_410 Prerequisite/s: [VDB320] | S1 | 3 | 1 | 16 |
| VDB411 | PROJECT_FOOD_SERVICE_MANAG_411 Prerequisite/s: [VDB410 #] | S1 | 2 | 0 | 6 |
| VDS413 | FOODS_413 Prerequisite/s: [VDS310] | S1 | 3 | 1 | 24 |
| VDS414 | CULINARY_ART_414 Prerequisite/s: [VDS210] and [VDS221] | S1 | 2 | 1 | 14 |
| | Totals for compulsory modules in the first/second quarter | | 18/18 | 3/3 | 48.5/48.5 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| INB320 | INTERIOR_PLANNING_320 Prerequisite/s: [ITW310] and [OBG110] | S2 | 1 | 1 | 12 |
| OPI480 | EXPER._TRAINING_IN_INDUST._480 | J1 | 1 | 0 | 5 |
| PGB480 | PROJECT:HOSPITALITY_MANAG._480 | J1 | 4 | 0 | 12 |

| VDS424 | CULINARY_ART_424 Prerequisite/s: [VDS210] and [VDS221] and [VDS414] | S2 | 2 | 1 | 14 |
|---|---|---|---|---|---|
| | Totals for compulsory modules in the third/fourth quarter | | 8/8 | 2/2 | 21.5/21.5 |

| | |
|---|---|
| **Compulsory credits = (140) Elective credits = (0)** | |

**A minimum of (547) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| **BCons.Sc.: Interior Merchandise: Retail Management** | **VBR** | **02130116** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BEM110 | MARKETING_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| INK110 | INTERIOR_PRODUCTION_110 | S1 | 1 | 1 | 12 |
| OBG110 | PRINCIPLES_OF_DESIGN_110 | S1 | 2 | 1 | 12 |
| STK110 | STATISTICS_110 Prerequisite/s: [Reg1.2(j)] | S1 | 3 | 1 | 13 |
| VKK155 | FOUNDATIONS_OF_VISUAL_LANG.155 | K1 | 3 | 0 | 6 |
| | Totals for compulsory modules in the first/second quarter | | 19/16 | 3/3 | 40.5/34.5 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BEM161 | MARKETING_MANAGEMENT_161 | K3 | 3 | 0 | 5 |
| BEM162 | MARKETING_MANAGEMENT_162 | K4 | 3 | 0 | 5 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EKN120 | ECONOMICS_120 Prerequisite/s: [EKN110 GS] | S2 | 3 | 0 | 10 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| ITW120 | INTERIOR_MERCHANDISE_120 | S2 | 2 | 1 | 12 |
| SEM180 | SEMINAR_180 | S2 | 2 | 0 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/14 | 1/1 | 25/25 |

| | |
|---|---|
| **Compulsory credits = (125) Elective credits = (0)** | |

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BEM251 | MARKETING_MANAGEMENT_251 | K1 | 3 | 0 | 8 |
| BEM252 | MARKETING_MANAGEMENT_252 | K2 | 3 | 0 | 8 |
| ERG280 | ERGONOMICS_280 | S1 | 2 | 1 | 8 |
| INK210 | INTERIOR_PRODUCTION_210 Prerequisite/s: [INK110] | S1 | 1 | 1 | 12 |
| MTT210 | FURNITURE_&_TEXTILE_HISTORY_210 | S1 | 3 | 0 | 8 |

| OBS110 | BUSINESS_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
|---|---|---|---|---|---|
| TKS210 | TEXTILES_210 | S1 | 3 | 1 | 14 |
| | Totals for compulsory modules in the first/second quarter | | 15/15 | 3/3 | 34/34 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BEM261 | MARKETING_MANAGEMENT_261 Prerequisite/s: [BEM110 GS] | K3 | 3 | 0 | 8 |
| BEM262 | MARKETING_MANAGEMENT_262 Prerequisite/s: [BEM110 GS] | K4 | 3 | 0 | 8 |
| ITW220 | INTERIOR_MERCHANDISE_220 | S2 | 2 | 1 | 12 |
| MTT220 | FURNITURE_&_TEXTILE_HISTORY_220 Prerequisite/s: [MTT210 GS] | S2 | 3 | 0 | 8 |
| OBS120 | BUSINESS_MANAGEMENT_120 | S2 | 3 | 0 | 10 |
| TKS220 | TEXTILES_220 Prerequisite/s: [TKS210] | S2 | 3 | 1 | 14 |
| TKS221 | TEXTILES_221 Prerequisite/s: [TKS220 GS] | S2 | 0 | 1 | 6 |
| VKK257 | STYLE_&_ANTI-STYLE_1940-PRES.257 | K3 | 2 | 0 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | 16/14 | 3/3 | 43/33 |

**Compulsory credits = (144) Elective credits = (0)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BDO219 | INDUSTR.AND_ORG.PSYCHOLOGY_219 | S1 | 3 | 0 | 16 |
| BER210 | BUSINESS_LAW_210 | S1 | 3 | 0 | 16 |
| FRK151 | FINANCIAL_ACCOUNTING_151 Prerequisite/s: [Par.1.2] | K1 | 4 | 0 | 5 |
| FRK152 | FINANCIAL_ACCOUNTING_152 Prerequisite/s: [FRK151 GS] and [Par.1.2] | K2 | 4 | 0 | 5 |
| INK310 | INTERIOR_PRODUCTION_310 Prerequisite/s: [INK210] | S1 | 1 | 1 | 12 |
| ITW310 | INTERIOR_MERCHANDISE_310 Prerequisite/s: [ITW120] and [TKS210] | S1 | 2 | 1 | 12 |
| OBS210 | BUSINESS_MANAGEMENT_210 | S1 | 3 | 0 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 2/2 | 41/41 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BER220 | BUSINESS_LAW_220 | S2 | 3 | 0 | 16 |
| FRK121 | FINANCIAL_ACCOUNTING_121 Prerequisite/s: [FRK151 GS] and [FRK152 GS] | S2 | 4 | 0 | 12 |
| FRK181 | FINANCIAL_ACCOUNTING_181 Prerequisite/s: [FRK151 GS] and [Par 1.2] and [Par 1.2] | S2 | 2 | 0 | 3 |
| INB320 | INTERIOR_PLANNING_320 Prerequisite/s: [ITW310] and [OBG110] | S2 | 1 | 1 | 12 |
| IPO380 | INTERIOR_EXPERIENTIAL_TRAI.380 | S2 | 1 | 0 | 10 |
| OKU220 | DESIGN_COMMUNICATION_220 | S2 | 1 | 0 | 8 |
| SEM380 | SEMINAR_380 Prerequisite/s: [SEM180] | S2 | 2 | 0 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/14 | 1/1 | 33.5/33.5 |

**Compulsory credits = (149) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BEM351 | MARKETING_MANAGEMENT_351 Prerequisite/s: [BEM110 GS or | K1 | 3 | 1 | 10 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| | BEM161,162] | | | | |
| BEM352 | MARKETING_MANAGEMENT_352 Prerequisite/s: [BEM110 GS] | K2 | 3 | 1 | 10 |
| INB410 | INTERIOR_PLANNING_410 Prerequisite/s: [INB320] and [OKU220] | S1 | 1 | 1 | 10 |
| ITP480 | PROJECT_INTERIOR_MERCH._480 Prerequisite/s: [SEM320] and [Final-year status] | J1 | 1 | 0 | 10 |
| OBS310 | BUSINESS_MANAGEMENT_310 | S1 | 4 | 0 | 20 |
| VBF410 | CONSUMER_FACILITATION_410 | S1 | 3 | 0 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 12/12 | 2/2 | 34/34 |

OBS315 can be taken instead of OBS310.

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM320 | MARKETING_MANAGEMENT_320 | S2 | 3 | 1 | 20 |
| ITP480 | PROJECT_INTERIOR_MERCH._480 Prerequisite/s: [SEM320] and [Final-year status] | J1 | 1 | 0 | 10 |
| KGK356 | SOUTH_AFRICAN_ART:_THEMES_356 | K4 | 3 | 0 | 15 |
| OBS325 | BUSINESS_MANAGEMENT_325 | S2 | 4 | 0 | 10 |
| TKS420 | TEXTILES_420 Prerequisite/s: [TKS210] and [TKS220] and [TKS221] | S2 | 3 | 0 | 8 |
| | Totals for compulsory modules in the third/fourth quarter | | 11/14 | 1/1 | 24/39 |

**Compulsory credits = (131) Elective credits = (0)**

**A minimum of (549) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BCons.Sc.: Interior Merchandise: Small Business Management** | **VBR** | **02130117** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM110 | MARKETING_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EKN110 | ECONOMICS_110 | S1 | 3 | 0 | 10 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| INK110 | INTERIOR_PRODUCTION_110 | S1 | 1 | 1 | 12 |
| OBG110 | PRINCIPLES_OF_DESIGN_110 | S1 | 2 | 1 | 12 |
| STK110 | STATISTICS_110 Prerequisite/s: [Reg1.2(j)] | S1 | 3 | 1 | 13 |
| VKK155 | FOUNDATIONS_OF_VISUAL_LANG.155 | K1 | 3 | 0 | 6 |
| | Totals for compulsory modules in the first/second quarter | | 19/16 | 3/3 | 40.5/34.5 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEM161 | MARKETING_MANAGEMENT_161 | K3 | 3 | 0 | 5 |
| BEM162 | MARKETING_MANAGEMENT_162 | K4 | 3 | 0 | 5 |
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |

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| EKN120 | ECONOMICS_120 Prerequisite/s: [EKN110 GS] | S2 | 3 | 0 | 10 |
|---|---|---|---|---|---|
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| ITW120 | INTERIOR_MERCHANDISE_120 | S2 | 2 | 1 | 12 |
| SEM180 | SEMINAR_180 | S2 | 2 | 0 | 6 |
| Totals for compulsory modules in the third/fourth quarter | | | 14/14 | 1/1 | 25/25 |

### Compulsory credits = (125) Elective credits = (0)

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ERG280 | ERGONOMICS_280 | S1 | 2 | 1 | 8 |
| FRK151 | FINANCIAL_ACCOUNTING_151 Prerequisite/s: [Par.1.2] | K1 | 4 | 0 | 5 |
| FRK152 | FINANCIAL_ACCOUNTING_152 Prerequisite/s: [FRK151 GS] and [Par.1.2] | K2 | 4 | 0 | 5 |
| INK210 | INTERIOR_PRODUCTION_210 Prerequisite/s: [INK110] | S1 | 1 | 1 | 12 |
| MTT210 | FURNITURE_&_TEXTILE_HISTORY_210 | S1 | 3 | 0 | 8 |
| OBS113 | ENTREPRENEURSHIP_113 | S1 | 3 | 0 | 10 |
| TKS210 | TEXTILES_210 | S1 | 3 | 1 | 14 |
| Totals for compulsory modules in the first/second quarter | | | 16/16 | 3/3 | 31/31 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| FRK121 | FINANCIAL_ACCOUNTING_121 Prerequisite/s: [FRK151 GS] and [FRK152 GS] | S2 | 4 | 0 | 12 |
| FRK181 | FINANCIAL_ACCOUNTING_181 Prerequisite/s: [FRK151 GS] and [Par 1.2] and [Par 1.2] | S2 | 2 | 0 | 3 |
| KOB181 | COMMUNICATION_MANAGEMENT_181 | K3 | 3 | 0 | 5 |
| MTT220 | FURNITURE&_TEXTILE_HISTORY_220 Prerequisite/s: [MTT210 GS] | S2 | 3 | 0 | 8 |
| OBS123 | ENTREPRENEURSHIP_123 | S2 | 3 | 0 | 10 |
| TKS220 | TEXTILES_220 Prerequisite/s: [TKS210] | S2 | 3 | 1 | 14 |
| TKS221 | TEXTILES_221 Prerequisite/s: [TKS220 GS] | S2 | 0 | 1 | 6 |
| VKK257 | STYLE&ANTI-STYLE_1940-PRES.257 | K3 | 2 | 0 | 10 |
| VKK258 | VISUAL_IDENTITY_&_BRANDING_258 | K4 | 2 | 0 | 10 |
| Totals for compulsory modules in the third/fourth quarter | | | 20/17 | 2/2 | 41.5/36.5 |

### Compulsory credits = (140) Elective credits = (0)

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BDO181 | INDUSTR._&_ORG._PSYCHOLOGY_181 | J1 | 4 | 0 | 2.5 |
| BER210 | BUSINESS_LAW_210 | S1 | 3 | 0 | 16 |
| INK310 | INTERIOR_PRODUCTION_310 Prerequisite/s: [INK210] | S1 | 1 | 1 | 12 |
| ITW310 | INTERIOR_MERCHANDISE_310 Prerequisite/s: [ITW120] and [TKS210] | S1 | 2 | 1 | 12 |
| OBS213 | ENTREPRENEURSHIP_213 | S1 | 3 | 0 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 13/13 | 2/2 | 29.25/29.25 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BDO181 | INDUSTR._&_ORG._PSYCHOLOGY_181 | J1 | 4 | 0 | 2.5 |
| BER220 | BUSINESS_LAW_220 | S2 | 3 | 0 | 16 |
| INB320 | INTERIOR_PLANNING_320 Prerequisite/s: [ITW310] and [OBG110] | S2 | 1 | 1 | 12 |
| IPO380 | INTERIOR_EXPERIENTIAL_TRAI.380 | S2 | 1 | 0 | 10 |
| OBS223 | ENTREPRENEURSHIP_223 | S2 | 3 | 0 | 16 |
| OKU220 | DESIGN_COMMUNICATION_220 | S2 | 1 | 0 | 8 |
| SEM380 | SEMINAR_380 Prerequisite/s: [SEM180] | S2 | 2 | 0 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 15/15 | 1/1 | 35.25/35.25 |

**Compulsory credits = (129) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| INB410 | INTERIOR_PLANNING_410 Prerequisite/s: [INB320] and [OKU220] | S1 | 1 | 1 | 10 |
| ITP480 | PROJECT_INTERIOR_MERCH._480 Prerequisite/s: [SEM320] and [Final year status] | J1 | 1 | 0 | 10 |
| OBS313 | ENTREPRENEURSHIP_313 | S1 | 3 | 0 | 20 |
| VBF410 | CONSUMER_FACILITATION_410 | S1 | 3 | 0 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 1/1 | 24/24 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| IPO480 | INTERIOR_EXPERIENTIAL_TRAI.480 | S2 | 1 | 0 | 10 |
| ITP480 | PROJECT_INTERIOR_MERCH._480 Prerequisite/s: [SEM320] and [Final year status] | J1 | 1 | 0 | 10 |
| KGK356 | SOUTH_AFRICAN_ART:_THEMES_356 | K4 | 3 | 0 | 15 |
| OBS323 | ENTREPRENEURSHIP_323 | S2 | 3 | 0 | 20 |
| TKS420 | TEXTILES_420 Prerequisite/s: [TKS210] and [TKS220] and [TKS221] | S2 | 3 | 0 | 8 |
| VKK353 | DECODING_VISUAL_CULTURE_353 | K3 | 2 | 0 | 15 |
| | Totals for compulsory modules in the third/fourth quarter | | 10/11 | 0/0 | 39/39 |

**Compulsory credits = (126) Elective credits = (0)**

**A minimum of (520) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|---|---|---|
| BCons.Sc.: Development | VBR | 02130118 |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| KLR110 | CLOTHING_PRODUCTION_110 | S1 | 1 | 1 | 12 |

| OBG110 | PRINCIPLES_OF_DESIGN_110 | S1 | 2 | 1 | 12 |
| OBS156 | BUSINESS_MANAGEMENT_156 | K2 | 3 | 0 | 5 |
| SLK151 | PSYCHOLOGICAL_PERSPECTIVES_151 | K1 | 2 | 0 | 6 |
| SLK152 | COGNITIVE_PROCESSES_152 | K2 | 2 | 0 | 6 |
| SOC151 | SOCIAL_ORGANISAT.&_INDIVID.151 | K1 | 3 | 0 | 6 |
| SOC152 | SOCIAL_INSTITUTIONS_152 | K2 | 3 | 0 | 6 |
| VDS110 | FOODS_110 | S1 | 3 | 0 | 8 |
| Totals for compulsory modules in the first/second quarter | | | 15/18 | 2/2 | 34/39 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| CIL174 | COMPUTER_&_INFORM.LITERACY_174 | K4 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| ITW120 | INTERIOR_MERCHANDISE_120 | S2 | 2 | 1 | 12 |
| KLR120 | CLOTHING_PRODUCTION_120 Prerequisite/s: [KLR110] | S2 | 1 | 1 | 12 |
| SEM180 | SEMINAR_180 | S2 | 2 | 0 | 6 |
| SLK155 | ENVIRONMENTAL_PSYCHOLOGY_155 | S2 | 2 | 0 | 6 |
| Totals for compulsory modules in the third/fourth quarter | | | 11/11 | 2/2 | 24/24 |

**Compulsory credits = (121) Elective credits = (10)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ERG280 | ERGONOMICS_280 | S1 | 2 | 1 | 8 |
| KLR210 | CLOTHING_PRODUCTION_210 Prerequisite/s: [KLR120] | S1 | 1 | 1 | 12 |
| SLK251 | PERSONOLOGY_251 Prerequisite/s: [SLK151] and [SLK152] | K1 | 2 | 0 | 10 |
| SLK253 | DEVELOPMENT_PSYCHOLOGY_253 | K2 | 2 | 0 | 10 |
| TKS210 | TEXTILES_210 | S1 | 3 | 1 | 14 |
| VDS210 | FOODS_210 | S1 | 3 | 1 | 16 |
| Totals for compulsory modules in the first/second quarter | | | 11/11 | 4/4 | 35/35 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ITW220 | INTERIOR_MERCHANDISE_220 | S2 | 2 | 1 | 12 |
| KEP220 | CULTURAL_EATING_PATTERNS_220 | S2 | 3 | 0 | 8 |
| KOB181 | COMMUNICATION_MANAGEMENT_181 | K3 | 3 | 0 | 5 |
| SLK254 | SOCIAL_PSYCHOLOGY_254 | K3 | 2 | 0 | 10 |
| SLK255 | PERSPECTIVES_ON_THE_FAMILY_255 | K3 | 2 | 0 | 10 |
| SOC259 | HOUSEHOLDFAMILY_&_GENDER_259 | K3 | 3 | 1 | 10 |
| TKS220 | TEXTILES_220 Prerequisite/s: [TKS210] | S2 | 3 | 1 | 14 |
| TKS221 | TEXTILES_221 Prerequisite/s: [TKS220 GS] | S2 | 0 | 1 | 6 |
| VDS221 | FOODS_221 Prerequisite/s: [VDS210] | S2 | 3 | 1 | 16 |
| Totals for compulsory modules in the third/fourth quarter | | | 21/11 | 5/4 | 63/28 |

ERG280 can be taken in the second semester.

**Compulsory credits = (161) Elective credits = (13)**

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| BEH311 | HOUSING_311 | S1 | 2 | 0 | 6 |

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| GSS310 | FAMILY_STUDIES_310 Prerequisite/s: [ Prescribed Psychology & Sociology modules up to 200 level] | S1 | 2 | 0 | 8 |
| ITW310 | INTERIOR_MERCHANDISE_310 Prerequisite/s: [ITW120] and [TKS210] | S1 | 2 | 1 | 12 |
| VDG212 | NUTRITION_212 Prerequisite/s: [KEP220] | S1 | 4 | 1 | 10 |
| VDS353 | FOODS_353 Prerequisite/s: [VDS220] and [VDS221] | K1 | 3 | 1 | 8 |
| VDS354 | FOODS_354 | K2 | 3 | 0 | 4 |
| | Totals for compulsory modules in the first/second quarter | | 13/13 | 3/2 | 26/22 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| INB320 | INTERIOR_PLANNING_320 Prerequisite/s: [ITW310] and [OBG110] | S2 | 1 | 1 | 12 |
| ITW220 | INTERIOR_MERCHANDISE_220 | S2 | 2 | 1 | 12 |
| KLD221 | CLOTHING_221 | S2 | 3 | 0 | 8 |
| KLD320 | CLOTHING_320 | S2 | 4 | 0 | 12 |
| KLD321 | CLOTHING_321 Prerequisite/s: [TKS220 GS] | S2 | 2 | 0 | 6 |
| OBS123 | ENTREPRENEURSHIP_123 | S2 | 3 | 0 | 10 |
| SEM380 | SEMINAR_380 Prerequisite/s: [SEM180] | S2 | 2 | 0 | 6 |
| VDG320 | NUTRITION_320 Prerequisite/s: [VDG310] | S2 | 3 | 1 | 14 |
| | Totals for compulsory modules in the third/fourth quarter | | 20/20 | 3/3 | 40/40 |

**Compulsory credits = (128) Elective credits = (0)**

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| HBS410 | HOME_MANAGEMENT_410 Prerequisite/s: [Fourth-year status] | S1 | 2 | 0 | 8 |
| ITW310 | INTERIOR_MERCHANDISE_310 Prerequisite/s: [ITW120] and [TKS210] | S1 | 2 | 1 | 12 |
| VBF410 | CONSUMER_FACILITATION_410 | S1 | 3 | 0 | 8 |
| VLG310 | EXTENSION_310 Prerequisite/s: [Fourth-year status] | S1 | 1 | 2 | 12 |
| | Totals for compulsory modules in the first/second quarter | | 8/8 | 3/3 | 20/20 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| HBS420 | HOME_MANAGEMENT_420 Prerequisite/s: [HBS410 GS] | S2 | 2 | 0 | 8 |
| KLD321 | CLOTHING_321 Prerequisite/s: [TKS220 GS] | S2 | 2 | 0 | 6 |
| TKS420 | TEXTILES_420 Prerequisite/s: [TKS210] and [TKS220] and [TKS221] | S2 | 3 | 0 | 8 |
| VDS321 | FOODS_321 Prerequisite/s: [VDS210] and [VDS221] | S2 | 3 | 1 | 14 |
| VDS423 | FOODS_423 | S2 | 3 | 0 | 8 |
| VLG320 | EXTENSION_320 Prerequisite/s: [VLG310 GS] | S2 | 1 | 2 | 12 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/14 | 3/3 | 28/28 |

**Compulsory credits = (96) Elective credits = (0)**

**A minimum of (529) credits is required to obtain the degree.**

| Field of study | Dept | Code |
|----------------|------|------|
| **BCons.Sc. Ed: Home Economics** | **VBR** | **02130119** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|

| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
|--------|-------------------------------|----|---|---|---|
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| INK110 | INTERIOR_PRODUCTION_110 | S1 | 1 | 1 | 12 |
| OBG110 | PRINCIPLES_OF_DESIGN_110 | S1 | 2 | 1 | 12 |
| OBS110 | BUSINESS_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| SCE170 | RELIGIOUS_INSTRUCTION_170 | J1 | 1 | 0 | 3 |
| SCI153 | ACADEMIC_PROFICIENCY_153 | K1 | 0 | 1 | 6 |
| VDS110 | FOODS_110 | S1 | 3 | 0 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 14/14 | 3/2 | 34.5/28.5 |

KLR110 can be taken instead of INK110.

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| ITW120 | INTERIOR_MERCHANDISE_120 | S2 | 2 | 1 | 12 |
| KEP220 | CULTURAL_EATING_PATTERNS_220 | S2 | 3 | 0 | 8 |
| KLR120 | CLOTHING_PRODUCTION_120 Prerequisite/s: [KLR110] | S2 | 1 | 1 | 12 |
| OBS120 | BUSINESS_MANAGEMENT_120 | S2 | 3 | 0 | 10 |
| SCE170 | RELIGIOUS_INSTRUCTION_170 | J1 | 1 | 0 | 3 |
| SEM180 | SEMINAR_180 | S2 | 2 | 0 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 16/14 | 2/2 | 31.5/28.5 |

**Compulsory credits = (123) Elective credits = (0)**

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ERG280 | ERGONOMICS_280 | S1 | 2 | 1 | 8 |
| INK210 | INTERIOR_PRODUCTION_210 Prerequisite/s: [INK110] | S1 | 1 | 1 | 12 |
| SCE200 | SCIENCE_EDUCATION_200 | J1 | 2 | 1 | 9 |
| TKS210 | TEXTILES_210 | S1 | 3 | 1 | 14 |
| VDS210 | FOODS_210 | S1 | 3 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 11/11 | 5/5 | 29.5/29.5 |

KLR210 can be taken instead of INK210.

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|------|------|-----|-----|-----|------|
| ITW220 | INTERIOR_MERCHANDISE_220 | S2 | 2 | 1 | 12 |
| SCE200 | SCIENCE_EDUCATION_200 | J1 | 2 | 1 | 9 |
| TKS220 | TEXTILES_220 Prerequisite/s: [TKS210] | S2 | 3 | 1 | 14 |
| TKS221 | TEXTILES_221 Prerequisite/s: [TKS220 GS] | S2 | 0 | 1 | 6 |
| VDG220 | NUTRITION_220 | S2 | 3 | 0 | 8 |
| VDS221 | FOODS_221 Prerequisite/s: [VDS210] | S2 | 3 | 1 | 16 |
| VHK262 | DIDACTICS:HOME_ECONOMICS_262 | K4 | 0 | 1 | 6 |

| | Totals for compulsory modules in the third/fourth quarter | | 13/13 | 5/6 | 32.5/38.5 |
|---|---|---|---|---|---|

| **Compulsory credits = (130) Elective credits = (0)** |
|---|

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| BEH311 | HOUSING_311 | S1 | 4 | 0 | 12 |
| SCE300 | SCIENCE_EDUCATION_300 | J1 | 2 | 4 | 21 |
| SCE302 | TEACHING_PRACTICE_302 | J1 | 0 | 0 | 31 |
| VDG310 | NUTRITION_310 Prerequisite/s: [FSG110 or VDG220] and [FSG120 or VDG163] | S1 | 3 | 1 | 14 |
| VDS353 | FOODS_353 Prerequisite/s: [VDS220] and [VDS221] | K1 | 3 | 1 | 8 |
| VDS354 | FOODS_354 | K2 | 3 | 0 | 4 |
| VHK310 | DIDACTICS:HOME_ECONOMICS_310 Prerequisite/s: [VHK262] | S1 | 4 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 16/16 | 7/6 | 56/52 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| KLD221 | CLOTHING_221 | S2 | 3 | 0 | 8 |
| KLD321 | CLOTHING_321 Prerequisite/s: [TKS220 GS] | S2 | 2 | 0 | 6 |
| SCE300 | SCIENCE_EDUCATION_300 | J1 | 2 | 4 | 21 |
| SCE302 | TEACHING_PRACTICE_302 | J1 | 0 | 0 | 31 |
| VDG320 | NUTRITION_320 Prerequisite/s: [VDG310] | S2 | 3 | 1 | 14 |
| VDS320 | FOODS_320 Prerequisite/s: [KEP220] and [KEP261] and [VDS220] and [VDS221] | S2 | 5 | 2 | 30 |
| | Totals for compulsory modules in the third/fourth quarter | | 15/15 | 7/7 | 55/55 |

| **Compulsory credits = (218) Elective credits = (0)** |
|---|

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ITW310 | INTERIOR_MERCHANDISE_310 Prerequisite/s: [ITW120] and [TKS210] | S1 | 2 | 1 | 12 |
| SCE400 | SCIENCE_EDUCATION_400 | J1 | 4 | 0 | 22 |
| SCE402 | TEACHING_PRACTICE_402 | J1 | 0 | 0 | 14 |
| VBM400 | SUBJ_DID:BUSINESS_MANGEMNT_400 | J1 | 2 | 1 | 12 |
| VHK400 | SUBJECT_DIDACTICS:HOME_ECON400 Prerequisite/s: [VHK310] | J1 | 0 | 1 | 6 |
| VWP410 | PROJECT:_HOME_ECONOMICS_410 | S1 | 2 | 2 | 26 |
| | Totals for compulsory modules in the first/second quarter | | 10/10 | 5/5 | 46/46 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| INB320 | INTERIOR_PLANNING_320 Prerequisite/s: [ITW310] and [OBG110] | S2 | 1 | 1 | 12 |
| KLD320 | CLOTHING_320 | S2 | 4 | 0 | 12 |
| OBS123 | ENTREPRENEURSHIP_123 | S2 | 3 | 0 | 10 |
| SCE400 | SCIENCE_EDUCATION_400 | J1 | 4 | 0 | 22 |
| SCE402 | TEACHING_PRACTICE_402 | J1 | 0 | 0 | 14 |
| VBM400 | SUBJ_DID:BUSINESS_MANGEMNT_400 | J1 | 2 | 1 | 12 |
| VHK400 | SUBJECT_DIDACTICS:HOME_ECON400 Prerequisite/s: [VHK310] | J1 | 0 | 1 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 14/14 | 3/3 | 44/44 |

| Compulsory credits = (180) Elective credits = (0) |
|---|
| |
| **A minimum of (651) credits is required to obtain the degree.** |

| Field of study | Dept | Code |
|---|---|---|
| **BCons.Sc. Ed: Hotel-Keeping and Catering** | **VBR** | **02130120** |

**First year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL171 | COMPUTER_&_INFORM.LITERACY_171 | K1 | 2 | 0 | 3 |
| CIL172 | COMPUTER_&_INFORM.LITERACY_172 | K2 | 2 | 0 | 3 |
| EOT151 | LANGUAGE_PROFICIENCY_(1)_151 | K1 | 2 | 0 | 3 |
| EOT152 | LANGUAGE_PROFICIENCY(2)_152 | K2 | 2 | 0 | 3 |
| OBG110 | PRINCIPLES_OF_DESIGN_110 | S1 | 2 | 1 | 12 |
| OBS110 | BUSINESS_MANAGEMENT_110 | S1 | 3 | 0 | 10 |
| SCE170 | RELIGIOUS_INSTRUCTION_170 | J1 | 1 | 0 | 3 |
| SCI153 | ACADEMIC_SKILLS_153 | K1 | 0 | 1 | 6 |
| TBE110 | TOURISM_MANAGEMENT_110 | S1 | 4 | 0 | 10 |
| VDS110 | FOODS_110 | S1 | 3 | 0 | 8 |
| | Totals for compulsory modules in the first/second quarter | | 17/17 | 2/1 | 33.5/27.5 |

**First year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| CIL173 | COMPUTER_&_INFORM.LITERACY_173 | K3 | 2 | 0 | 3 |
| EOT153 | LANGUAGE_PROFICIENCY(3)_153 | K3 | 2 | 0 | 3 |
| EOT154 | LANGUAGE_PROFICIENCY(4)_154 | K4 | 2 | 0 | 3 |
| ITW120 | INTERIOR_MERCHANDISE_120 | S2 | 2 | 1 | 12 |
| OBS120 | BUSINESS_MANAGEMENT_120 | S2 | 3 | 0 | 10 |
| SCE170 | RELIGIOUS_INSTRUCTION_170 | J1 | 1 | 0 | 3 |
| SEM180 | SEMINAR_180 | S2 | 2 | 0 | 6 |
| TBE120 | TOURISM_MANAGEMENT_120 | S2 | 4 | 0 | 10 |
| | Totals for compulsory modules in the third/fourth quarter | | 16/14 | 1/1 | 26.5/23.5 |

| Compulsory credits = (111) Elective credits = (0) |
|---|

**Second year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| SCE200 | SCIENCE_EDUCATION_200 | J1 | 2 | 1 | 9 |
| TKS211 | TEXTILES_211 | K1 | 3 | 1 | 7 |
| VDS210 | FOODS_210 | S1 | 3 | 1 | 16 |
| | Totals for compulsory modules in the first/second quarter | | 8/5 | 3/2 | 19.5/12.5 |

**Second year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|---|---|---|---|---|---|
| ITW220 | INTERIOR_MERCHANDISE_220 | S2 | 2 | 1 | 12 |
| KEP220 | CULTURAL_EATING_PATTERNS_220 | S2 | 3 | 0 | 8 |
| SCE200 | SCIENCE_EDUCATION_200 | J1 | 2 | 1 | 9 |
| TBE220 | TOURISM_MANAGEMENT_220 | S2 | 4 | 0 | 16 |
| VDG220 | NUTRITION_220 | S2 | 3 | 0 | 8 |
| VDS221 | FOODS_221 Prerequisite/s: [VDS210] | S2 | 3 | 1 | 16 |

| VHK262 | DIDACTICS:HOME_ECONOMICS_262 | K4 | 0 | 1 | 6 |
|--------|------------------------------|-----|-----|-----|-----|
| | Totals for compulsory modules in the third/fourth quarter | | 17/17 | ¾ | 34.5/40.5 |

| | | | | | |
|--------|------------------------------|-----|-----|-----|-----|

| **Compulsory credits = (107) Elective credits = (0)** | | | | | |
|---|---|---|---|---|---|

**Third year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|--------|------------------------------|-----|-----|-----|-----|
| SCE300 | SCIENCE_EDUCATION_300 | J1 | 2 | 4 | 21 |
| SCE302 | TEACHING_PRACTICE_302 | J1 | 0 | 0 | 31 |
| VDG310 | NUTRITION_310 Prerequisite/s: [FSG110 or VDG220] and [FSG120 or VDG163] | S1 | 3 | 1 | 14 |
| VHK310 | DIDACTICS:HOME_ECONOMICS_310 Prerequisite/s: [VHK262] | S1 | 4 | 1 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 9/9 | 6/6 | 42/42 |

**Third year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|--------|------------------------------|-----|-----|-----|-----|
| SCE300 | SCIENCE_EDUCATION_300 | J1 | 2 | 4 | 21 |
| SCE302 | TEACHING_PRACTICE_302 | J1 | 0 | 0 | 31 |
| VDB320 | FOOD_SERVICE_MANAGEMENT_320 Prerequisite/s: [VDS320 #] | S2 | 4 | 1 | 20 |
| VDS320 | FOODS_320 Prerequisite/s: [KEP220] and [KEP261] and [VDS220] and [VDS221] | S2 | 5 | 2 | 30 |
| | Totals for compulsory modules in the third/fourth quarter | | 11/11 | 7/7 | 51/51 |

| | | | | | |
|--------|------------------------------|-----|-----|-----|-----|

| **Compulsory credits = (186) Elective credits = (0)** | | | | | |
|---|---|---|---|---|---|

**Fourth year, first semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|--------|------------------------------|-----|-----|-----|-----|
| SCE400 | SCIENCE_EDUCATION_400 | J1 | 4 | 0 | 22 |
| SCE402 | TEACHING_PRACTICE_402 | J1 | 0 | 0 | 14 |
| VBM400 | SUBJ_DID:BUSINESS_MANGEMNT_400 | J1 | 2 | 1 | 12 |
| VDS354 | FOODS_354 | K2 | 3 | 0 | 4 |
| VDS414 | CULINARY_ART_414 Prerequisite/s: [VDS210] and [VDS221] | S1 | 2 | 1 | 14 |
| VHK400 | SUBJECT_DIDACTICS:HOME_ECON400 Prerequisite/s: [VHK310] | J1 | 0 | 1 | 6 |
| VWP411 | PROJECT:HOTELK.&_CATERING_411 | S1 | 0 | 2 | 18 |
| | Totals for compulsory modules in the first/second quarter | | 8/11 | 5/5 | 43/47 |

**Fourth year, second semester:**

| Code | Name | Qrt | lpw | ppw | Crdt |
|--------|------------------------------|-----|-----|-----|-----|
| OBS123 | ENTREPRENEURSHIP_123 | S2 | 3 | 0 | 10 |
| SCE400 | SCIENCE_EDUCATION_400 | J1 | 4 | 0 | 22 |
| SCE402 | TEACHING_PRACTICE_402 | J1 | 0 | 0 | 14 |
| TBE320 | TOURISM_MANAGEMENT_320 | S2 | 4 | 0 | 20 |
| VBM400 | SUBJ_DID:BUSINESS_MANGEMNT_400 | J1 | 2 | 1 | 12 |
| VDS424 | CULINARY_ART_424 Prerequisite/s: [VDS210] and [VDS221] and [VDS414] | S2 | 2 | 1 | 14 |
| VHK400 | SUBJECT_DIDACTICS:HOME_ECON400 Prerequisite/s: [VHK310] | J1 | 0 | 1 | 6 |
| | Totals for compulsory modules in the third/fourth quarter | | 15/15 | 3/3 | 49/49 |

| | | | | | |
|--------|------------------------------|-----|-----|-----|-----|

| **Compulsory credits = (188) Elective credits = (0)** | | | | | |
|---|---|---|---|---|---|
| **A minimum of (592) credits is required to obtain the degree.** | | | | | |

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**Sc.7.6   BACCALAUREUS SECUNDAE EDUCATIONIS (SCIENTIAE)
BSecEd(Sci)  (Code 02135001)**

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**(a)     Articulation possibilities**

Candidates who meet all the requirements for the DipEd(Sci), can be considered for admission to studies for the BSecEd(Sci). Applicable modules that have been passed, will be recognized for the degree.

**(b)     Admission requirements**

A Grade 12 certificate with university exemption, with Mathematics and Physical Science at higher grade with at least 50% (D), as well as two official languages, including English or Afrikaans (first or second language) at higher grade with at least 50% (D).

The Extended Programme: Biological and Natural Sciences is also applicable with regards to the BSecEd(Sci) degree.

**NB**: Candidates who do not comply with the requirement regarding Physical Science may only be admitted to the degree if the study programme is compiled from modules for which Physical Science is not a prerequisite.

**(c)     Duration**

Four years of full-time study.

**(d)     Curriculum**

A minimum of 626 credits are required to obtain the degree.

**Faculty Requirement (16)**

| | | | |
|---|---|---|---|
| WTW 114 | Calculus 114 **or** | (16) | Par.1.2 |
| WTW 134 | Mathematics 134 | (16) | Par.1.2 |

**General  Requirement (258)**

| | | | |
|---|---|---|---|
| SCI 152 | Computer and Problem-solving Skills 152 | (12) | |
| SCI 153 | Academic Skills 153 | (6) | |
| SCI 162 | Computer and problem-solving skills | (12) | |
| SCI 163 | Basic Research Skills 163 | (6) | |
| EOT 151 | Language Skills 151 | (3) | |
| EOT 152 | Language Skills 152 | (3) | |
| EOT 153 | Language Skills 153 | (3) | |
| EOT 154 | Language Skills 154 | (3) | |
| SCE 170 | Religious Instruction 170 | (6) | |
| SCE 200 | Science Education 200 | (18) | |
| SCE 300 | Science Education 300 | (42) | SCE 200 |
| SCE 301 | Educational Community Project 301 | (28) | SCE 200 |
| SCE 302 | School Practice 302 | (62) | SCE 200 |
| SCE 400 | Science Education 400 | (44) | SCE 300 |
| SCE 402 | School Practice 402 | (28) | Two school subjects at 200 level |
| TED 400 | Language Endorsement 400 | | |

**Additional requirement**

Two year modules† at 200 level, both of which should be recognized school subjects.

**Limited choice (72)**

*Two subject didactics from:*

SCE 471      Subject Didactics of Biology 471      (36)   BLG 150,160/
                                                               MLB 111, ZEN 161/
                                                               BOT 161

| SCE 472 | Subject Didactics of Geography 472 | (36) | GGY 151,132, GGY 161,162 |
|---------|-----------|------|---------|
| SCE 473 | Subject Didactics of Agriculture 473 | (36) | TDH |
| SCE 474 | Subject Didactics of Physical Science 474 | (36) | PHY 171; CMY 152,153 |
| SCE 475 | Subject Didactics of Computer Studies 475 | (36) | COS 110,212,283 |
| SCE 476 | Subject Didactics of Mathematics 476 | (36) | WTW 114/126,128 |

At least 72 credits at 300 level of a single year module (two sequential semester modules) that is presented in the Faculty of Natural and Agricultural Sciences.

**Outstanding credits**
Outstanding credits are compiled from two additional year modules† (consisting of two consecutive semester modules each), which can be a third subject didactics, and a semester module, or a year module of at least 16 credits.
Students may, in consultation with the Dean, take modules not listed in the Syllaby and which are the equivalent of a maximum of 36 credits.

**†**    A year module is two successive semester modules.

**TDH**    Indicates that permission from the head of department must be obtained.

**(e)    Teaching Practice**
A student must gain teaching experience by means of:
(i)    Attending demonstration lessons.
(ii)    School Practice 302 and 402.
(iii)    Compulsory Subject Didactics modules.
(iv)    Educational Community Project (SCE 301).

**(f)    Language Endorsement**
Students must demonstrate the ability to teach in at least two official languages, of which one must be either English or Afrikaans.

**(g)    Compulsory language modules**
Subject to satisfactory performance in the prescribed language test, all or some of the above language skills modules (EOT 151–154), may be replaced by approved language modules of equal weight.

**(h)    Religious Instruction (SCE 170)**
Required by the Department of Education. A student may apply for exemption on the grounds of conscientious objection, only if a course of at least 6 credits is taken instead of Religious Instruction.

**(i)    Professional studies**
Professional studies consist of the required Subject Didactics, the Educational Community Project (SCE 301) and Sciences (SCI 152, 153 or 163).

**(j)    Education**

Education consist of Science Education (SCE 200, 300 and 400).

**(k)** **Recognized School Subjects**

| Course | Level | Modules |
|---|---|---|
| Biology*†† | 100 | BLG 150,160 or MLB 111 and ZEN 161 and BOT 161 |
| Biology*†† | 200 | Appropriate modules in Botany or Zoology/Entomology or Physiology at 200 level. |
| Chemistry** | 100 | CMY 117, 127/101,102 |
| Chemistry** | 200 | CMY 282,283,284,285 |
| Physics** | 100 | PHY 171/101,102 |
| Physics** | 200 | PHY 216,225,226 |
| Natural Science | 200 | GLY 151, GGY 252, 361 or 362, <br> GLY 162 or GGY 164 or <br> combination of appropriate modules in Chemistry and Physics at 200 level, on the recommendation of the head of department and with the approval of the Dean. |
| Geography | 100 | GGY 132, 153, 154, GGY 162, 163, 164 |
| Geography | 200 | GGY 252, 283, 263, 264 |
| Agriculture†† | 100 | In consultation with the Programme Manager: Natural and Agricultural Sciences |
| Agriculture†† | 200 | In consultation with the Programme Manager: Natural and Agricultural Sciences |
| Computer Science | 100 | COS 110, COS 160/COS 130 or 212, 283 |
| Computer Science | 200 | 4 modules from: <br> COS 212, 213, 221, 222, 283,284. <br> COS 212 and 283 may not both count up to 100 and 200 level. |
| Mathematics | 100 | WTW 114/101,126,128/102; or WTW 134,144 |
| Mathematics | 200 | WTW 211, 389  plus a suitable combination of credits to the value of 24 from WTW |

**NB:** All modules of a course must be passed for the course to be recognized as a school subject.

\* Zoology, Botany and Biology are the equivalent of only one recognised school subject. A recognised module must be passed at 100 level.

\*\* Physics, Chemistry and Physical Science are the equivalent of only one recognised school subject and is only accepted if a full year module (two consecutive semester modules) is passed in both Chemistry and Physics at 100 level.

†† The combination BLG 150,160,250, BOT 227 is the equivalent of Biology at 200 level, but does not lead to admission to courses at 300 level.
The combination with MLB 111, BOT 161, ZEN 161 together with appropriate second-year courses in Zoology, Botany and Physiology can lead to admission to courses at 300 level.

**(l)** **Special examination in the Faculty of Natural and Agricultural Sciences**
A final-year student who requires a maximum of 48 credits to comply with all the requirements for the degree, may be admitted by the Dean on the recommendation of the relevant head(s) of department, to special examinations in the modules he or she has failed, provided that this will enable them to qualify for the degree. Students with a final mark of less than 40% in any of the failed modules, or who have previously been admitted to a special examination, do not qualify for a special examination.

**(m)** **Degree with distinction**

The BSecEd(Sci) degree is conferred with distinction on a student who obtains a weighted average of at least 75% in:
(i)     A compulsory year module at 300 level.
(ii)    One Subject Didactics.
(iii)   Science Education 400.
(iv)    School Practice 402.

A weighted average of at least 65% in the other modules at 400 level is an additional requirement.

## Sc.7.7   DIPLOMAS

A Grade 12 certificate must be included in all applications.

### DIPLOMA IN EDUCATION WITH SPECIALISATION IN SCIENCES FOR THE SECONDARY PHASE [DipEd(Sci)]  (Code 02120700)

**(a)   Admission requirements**
A Grade 12 certificate with university exemption and Mathematics and Physical Science at higher grade with at least 50% (D), as well as two official languages, including English or Afrikaans (first or second language) at higher grade with at least 50% (D).  The Extended Programme also applies to the DipEd(Sci).

**Exit Level: Admission requirement**
Students who have been registered for at least one year for the BSecEd(Sci), BSc, BSc(Agric) or the Science: Extended Programme or Biological and Agricultural Sciences: Extended Programme, may be considered for admission to DipEd(Sci) study. Applicable modules can be recognized for the Diploma.

**NB**: Students who do not comply with the requirement regarding Physical Science, may only be admitted to the diploma if the study programme is compiled from modules for which Physical Science is not a prerequisite.

**(b)   Duration**
Three years of full-time study.

**(c)   Curriculum**
A minimum of 480 credits is required to obtain the diploma.

| Module code | Description | Credits | Prerequisites |
|---|---|---|---|
| **Faculty requirement (32)** | | | |
| WTW 101 | | (32) | Par.1.2 |
| | | | |
| **General Requirement (183)** | | | |
| SCI 152 | Computer and Problem-solving Skills 152 | (12) | |
| SCI 153 | Academic Skills 153 | | (6) |
| SCI 163 | Basic Research Skills 163 | (6) | |
| CIL 173 | Spread Sheet 173 | (3) | |
| EOT 151 | Language Skills 151 | (3) | |
| EOT 152 | Language Skills 152 | (3) | |

| EOT 153 | Language Skills 153 | (3) | |
|---------|---------------------|-----|---|
| EOT 154 | Language Skills 154 | (3) | |
| SCE 170 | Religious Instruction 170 | (6) | |
| SCE 200 | Science Education 200 | (18) | |
| SCE 300 | Science Education 300 | (42) | SCE 200 and one subject didactic |
| SCE 301 | Educational Community Project | (28) | SCE 200 and one subject didactic |
| SCE 302 | Teaching Practice 302 | (62) | SCE 200 and one subject didactic |
| TED 400 | Language Endorsement 400 | | |

**Additional requirement**

One year module† to 200-level which is recognized as a school subject.

One year module† to at least 100-level which is recognized as a school subject.

**Limited choice (72)**

**Two didactic courses from**

| SCE 471 | Subject Didactics of Biology 471 | (36) | BLG 150, 160 or MLB111and ZEN161 or BOT161 |
|---------|----------------------------------|------|--------------------------------------------|
| SCE 472 | Subject Didactics of Geography 472 | (36) | GGY132, 151,161,162 |
| SCE 473 | Subject Didactics of Agriculture 473 | (36) | TDH |
| SCE 474 | Subject Didactics of Physical Science 474 | (36) | PHY 171, CMY 152 |
| SCE 475 | Subject Didactics of Computer Studies 475 | (36) | COS 110/CIL 171, 172,173 and COS 130/160 |
| SCE 476 | Subject Didactics of Mathematics 476 | (36) | WTW 101, 102 |

**Outstanding credits**

Outstanding credits are compiled from one additional year module and a semester module or year module of at least 16 units. It is recommended that the year module be a language module.

Students may, in consultation with the Dean, take modules not listed in the Syllabi and which are the equivalent of a maximum of 36 credits.

**†** A year module is two successive semester modules.

**TDH** Indicates that permission from the head of department must be obtained.

**(d) Teaching Practice**

A student must gain teaching experience by means of:

(i) Attending demonstration lessons.

(ii) Teaching Practice 302.

(iii) Compulsory Subject Didactics courses.

(iv) Educational Community Project (SCE 301).

**(e) Language Endorsement**

A student must prove his or her ability to teach in at least two official languages of which one should be either English or Afrikaans.

**(f) Religious Instruction (SCE 170)**

This is required by the Department of Education. A student may on the grounds of conscientious objection apply in writing for exemption, in which case a course of at least 6 credits has to be taken in the place of Religious Instruction.

**(g)  Compulsory language modules**
Subject to satisfactory performance in the prescribed language test, all or some of the above language skills modules (EOT 151–154) may be replaced by approved language modules of equal weight.

**(h)  Professional studies**
Professional studies consist of the required Subject Didactics, the Educational Community Project (SCE 301) and Science Orientation (SCI 152, 153, 163)

**(i)  Education**
Education consists of Science Education SCE 200 and SCE 300.

**(j)  Recognized School Subjects**
Refer to Sc 7.6 (k)

**(k)  Special examination in the Faculty of Natural and Agricultural Sciences**
A final-year student who requires a maximum of 48 credits to comply with all the requirements for the degree, may be admitted by the Dean on the recommendation of the relevant head(s) of department to special examinations in the module(s) he or she has failed, provided that this will enable them to qualify for the degree. Students with a final mark of less than 40% in any of the failed modules, or who have previously been admitted to a special examination, do not qualify for a special examination.

**(l)  Diploma awarded with distinction**
The DipEd(Sci) is conferred with distinction on a student who obtains a weighted average of at least 75% in the compulsory year course at 200-level, one subject didactics, Science Education 300, and Teaching Practice 302, with a weighted average of at least 65% over-all in modules recognized for the diploma.

**(m)  Recognition of subject modules for the BSecEd(Sci) degree**
A student who meets all the requirements for the diploma, may complete the BSecEd(Sci) at a later stage.  Subject courses presented for the DipEd(Sci) may be presented for the BSecEd(Sci).

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**POSTGRADUATE DIPLOMA IN EARTH SCIENCE PRACTICE AND MANAGEMENT (Code 02220043)**

**(a)  Admission requirements**
BSc(Hons) in Geology or an equivalent four-year degree, or any other qualification deemed by the Senate in terms of Regulation G.62 to be equal. Additional preparatory course work may be required by the head of the department.

**(b)  Duration and curriculum**
The minimum duration is two years of part-time studies. Die curriculum is determined in consultation with the head of department. The courses consist of theoretical modules.

(c) **Examination admission and pass requirements**

To be admitted to the examination, a student must have a semester or year mark of at least 40 %. A subminimum of 40% is required in the examination to pass, and the final mark must be 50% or higher.

In some modules a semester or year mark may not be required. In such cases, the examination mark must be 50% or higher to pass. The modules where this is the case, are indicated in the departmental guides.

(d) **Diploma with distinction**

The diploma is awarded with distinction if a student obtains an average of at least 75% in 50% of the theoretical modules (based on course credits), *as well as* an average of at least 65% in the remaining theoretical modules.

(e) **Articulation possibilities for admission to Magister Scientiae in Earth Science Practice and  Management**

Successful completion of the Diploma can offer admission by articulation to the MSc with specialisation in Earth Sciences and Management, for which an essay on an approved subject is a prerequisite.

Students who have registered for the MSc, but fail to submit an essay within one calendar year after completion of the theoretical portion, qualif y for the Postgraduate Diploma in Earth Science Practice and Management.

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**POSTGRADUATE DIPLOMA IN GEOGRAPHICAL INFORMATION SYSTEMS (GIS) (Code 02220041)**

**Please note: This Diploma has temporarily been put on hold.  No new students will be admitted until further notice.**

(a) **Admission**

An appropriate B degree is normally required, or any other qualification deemed to be equal by the Senate of the University.

(b) **Duration**

Two years of telematic tuition, but arrangements are being made for a full-time programme of one year.

(c) **Aim**

Geographic Information Systems (GIS) are an aid which is used by a variety of businesses and disciplines for the processing of data and presentation of information for decision making. The programme in GIS covers the conceptual,  technical and organizational aspects of geographic data and data processing, as well as its application possibilities. The programme aims to introduce people from various disciplines to and train them in the use of new technology of geographic data processing.

(d) **Presentation**

The programme is presented telematically (distance education) and students do not have to attend lectures. Discussion sessions can be arranged.

(e) **Curriculum**

The curriculum is compiled in consultation with the head of department.

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**POSTGRADUATE DIPLOMA IN ENVIRONMENT AND SOCIETY (Code 02220042)**

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**(a)  Admission requirements**
BSc(Hons) in Geography or an equivalent four-year degree, or any other qualification deemed by the Senate in terms of Regulation G.1.3 and G.62 as being equal to the  BSc(Hons). Additional preparatory course work may be set by the head of department.

**(b)  Evaluation**
Evaluation of progress will be done throughout the study by means of tasks, projects, tests and examinations.

**(c)  External evaluation**
Oral and written examinations as well as the dissertation will be moderated by external examiners.

**(d)  Curriculum**
The curriculum is compiled in consultation with the head of department.

**(e)  Articulation possibilities for admission to the Magister Scientiae in Environment and Society**
Successful completion of the Diploma can offer admission by articulation to the MSc with specialization in Environment and Society, for which an essay on an approved subject is required.
Student who are registered for the MSc and fail to submit the  essay within one calendar year after completing the theoretical portion of the work, qualify for the Postgraduate Diploma in Environment and Society.

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**ADVANCED DIPLOMA IN EXTENSION AND RURAL DEVELOPMENT  (Code 02220044)**

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The admission requirements are:

- an appropriate initial university diploma in one of the Agricultural disciplines plus one year appropriate extensive experionce;  or

- an appropriate BTech degree or National Diploma plus one year relevant extensive experience; or

- an appropriate Agricultural Diploma or related diploma plus five years' relevant extensive experience;  or

- a qualification deemed appropriate by the Senate of the University plus approved extensive experience (RPL).

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**POSTGRADUATE DIPLOMA IN CLOTHING AND TEXTILES (Code 02220045)**

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Details are available from the Department of Consumer Science.

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**Sc.7.8   CERTIFICATES**

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A Grade 12 certificate must be included in all applications.

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**ADVANCED CERTIFICATE IN EDUCATION (Computers and Telecommunication in Mathematics, Science and Technology Education)**
**ACE (Computers and Telecommunication in Mathematics, Science and Technology Education) (Code 02120086)**

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**(a)  Admission requirements**

A professional teaching qualification of at least three years full-time study (M+3) in the learning areas of Mathematics, Natural Science or Technology.

**(b)  Duration**

The equivalent of two years of part-time study.

**(c)  Curriculum**
**First year of study**
SEF 481 Current trends in Mathematics, Science and Technology Education 481
SEF 482 Computers in Mathematics, Science and Technology Education 482

**Second year of study**
SEF 483 Computers in Mathematics, Science and Technology Education 483
SEF 484 The computer as a laboratory and classroom tool
*One of the following:*
SEF 485 Networking Software and Hardware 485, or
any other module of at least the same weight approved by the faculties of Natural and Agricultural Sciences or Education for degree purposes or for an Advanced Certificate of Education, subject to approval by the Dean of the Faculty.

**(d)  Special examination in the Faculty of Natural and Agricultural Sciences**

A final-year student who has failed a maximum of two semester or one year module and has obtained a final mark of at least 40%, may be admitted by the Dean to a special examination in such a module during January of the following year, provided that this will enable him or her to qualify.

**(e)  Qualification with distinction**

The qualification will be awarded with distinction if the student has achieved at least 75% in the module SEF 481 and SEF 483, and at least 65% in the remaining modules.

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**ADVANCED CERTIFICATE IN EDUCATION (Technology)**
**ACE (Technology) (Code 02120087)**

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**(a)  Admission requirements**

A professional teaching qualification of at least three years full-time (M+3). A 50% pass in Grade 12 Mathematics and Physical Sciences in the higher grade or applicable proven prior learning. If the mathematics and/or the physical science requirement(s) is/are not met, the module SEF 478 and SEF 479 (as applicable) must be passed before the candidate may register for SEF 471 –3, SEF 481 and SEF 491-6.

This programme will be offered subject to sufficient numbers of applicants only.

**(b)  Duration:** The equivalent of one year of full-time or two years of part-time study.

**(c)  Curriculum**

**First year of study**

CIL 171,CIL 172 (or equivalent) Computer and Information Literacy*          (6)
SEF 478 Introductory Mathematics for teachers 478*                         (12)
SEF 479 Introductory Physical Science for teachers 479*                    (12)
* Candidates may be exempted from these modules on the grounds of proven learning which may be determined by passing an equivalent module or an assessment procedure prescribed by the Director of the Centre for Science, Mathematics and Technology Education.

SEF 471 Mathematics 471                                                     (16)
SEF 481 Current trends in Mathematics,Science and Technology Education 481  (16)
SEF 491 Technology Fundamentals 491                                        (12)
SEF 492 Technology to Early Senior Phase 492                               (12)
SEF 493 Technology for Middle Senior Phase 493                             (12)
SEF 494 Technology for Upper Senior Phase 494                              (12)
SEF 495 Indigenous Technology 495                                          ( 6)
SEF 496 Technology Project 496                                             ( 6)

One of
SEF 472 First Course in Chemistry 472                                                (16)
SEF 473 General Physics 473                                                 (16)
SEF 482 Computers in Mathematics, Science and Technology Education 482      (16)
Any other courses at level 5 or 6 approved by the dean of the Faculty of Natural and Agricultural Science or the Faculty of Education for degree purposes or for an Advanced Certificate in Education or Further Diploma in Education to a minimum of 12 credits. At least 120 credits must be earned for the certificate to be awarded. Fundamental modules for which exemption has been obtained are not counted towards the required 120 credits.
**Additional certification requirements**
In addition, candidates will be required to obtain a workshop safety certificate and a First Aid (Level 1) certificate.

**(d)     Special examination in the Faculty of Natural and Agricultural Sciences**
A final-year student who has failed a maximum of two semester modules or one year module and has obtained a final mark of least 40%, may be admitted by the Dean to a special examination in such a course during January of the following year on condition that the student then satisfies all the requirements of the certificate.

**(e)     Certificate with distinction**
To pass the Advanced Certificate with distinction, a student must pass SEF 481, SEF 471 and SEF 496 with at least 75% and the remaining subjects with at least 65%.

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**ADVANCED CERTIFICATE IN EDUCATION (Mathematics and Science)**
**ACE (Mathematics and Science) (Code 02120089)**

**(a)     Admission**
A professional teaching qualification of at least three years full-time (M+3) in the learning areas of Mathematics, Natural Science or Technology.

**(b)     Duration**
The equivalent of one year of full-time or two years of part-time study.

**(c)     Curriculum**

**First year of study**

SEF 481 Current trends in Mathematics, Science and Technology Education 481
SEF 471 Mathematics 471
SEF 472 First course in Chemistry 472

**Second year of study**
SEF 473 General Physics 473
**both** (SEF 474 Earth Sciences 474 and SEF 475 Mathematics 475), **or**
**one of** (SEF 474 or SEF 475) **plus** another course of the same weight approved by the faculties of Natural and Agricultural Sciences or Education for degree purposes or for an Advanced Certificate in Education, subject to approval by the Dean of the Faculty.

**(d)** **Special examination in the Faculty of Natural and Agricultural Sciences**
A final-year student who has failed in no more than two semester modules or one year module and has achieved a final mark of at least 40%, may be permitted by the Dean to sit for a special examination in January of the following year on condition that the student then satisfies all the requirements of the qualification.

**(e)** **Qualification with distinction**
To pass the qualification with distinction, a student must pass both SEF 481 and SEF 471 with at least 75% and the remaining subjects with at least 65%.

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**ADVANCED CERTIFICATE IN EDUCATION (Mathematics and Computer Literacy)**
**ACE (Mathematics and Computer Literacy) (Code 02120090)**

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**(a)** **Admission requirements**
A professional teaching qualification of at least three years full-time (M+3). A 50% pass in Grade 12 Mathematics in the higher grade or applicable proven prior learning. If the mathematics requirement is not met, the course SEF 478 must be passed before the candidate may register for SEF 471 and SEF 476.

**(b)** **Duration:** The equivalent of one year of full-time or two years of part-time study.

**(c)** **Curriculum**
**First year of study**
SEF 481 Current trends in Mathematics, Science and Technology Education 481
SEF 482 Computers in Mathematics, Science and Technology Education 482
SEF 471 Mathematics 471
CIL 171,CIL 172, CIL 173 Computer and Information Literacy*
EOT 151/152/153/154 Language Proficiency*
*Candidates may be exempted from these modules on the grounds of proven prior learning which will be determined by passing an equivalent module or an assessment procedure prescribed by the Director of the Centre for Science, Mathematics and Technology Education.

**Second year of study**
SEF 476 Statistics for Teachers 476 or
SEF 482 Computers in Mathematics, Science and Technology Education 482
SEF 475 Mathematics 475
**plus one of**
SEF 477 Statistics for Teachers 477
SEF 483 Computers in Mathematics, Science and Technology Education 483
SEF 484 The computer as a laboratory and classroom tool
or with permission of the Dean of the Faculty another module with the same credit value approved by the faculties of Natural and Agricultural Sciences or Education for degree,

Further Diploma or Advanced Certificate purposes.

**(d) Special examination in the Faculty of Natural and Agricultural Sciences**
A final-year student who has failed no more than two semester modules or one year module but achieved a final mark of least 40% may be admitted by the Dean to a special examination in such a module during January of the following year, provided that this will enable him or her to qualify for the advanced certificate.

**(e) Certificate with distinction**
The Advanced Certificate will be awarded with distinction if the student has achieved at least 75% in the courses SEF 481 and SEF 471 and at least 65% in the remaining courses.