

# UNIVERSITY OF THE FREE STATE

REACH OUT • GET CONNECTED • TOUCH GREATNESS



## FACULTY OF NATURAL AND AGRICULTURAL SCIENCES UNDERGRADUATE PROGRAMMES

T: +27 51 401 3000 | T: Kovsie2Bot: +27 87 240 6370 | E: [ufsmarketing@ufs.ac.za](mailto:ufsmarketing@ufs.ac.za) | [www.ufs.ac.za](http://www.ufs.ac.za)

 UFSUV |  UFSweb |  UFSweb |  @ufsuv

*Inspiring excellence. Transforming lives.*

**Kovsie  
2B**

UNIVERSITY OF THE  
FREE STATE  
UNIVERSITEIT VAN DIE  
VRYSTAAT  
YUNIVESITHI YA  
FREISTATA



**UFS**  
STUDENT RECRUITMENT  
SERVICES

Welcome to the Faculty of Natural and Agricultural Sciences, where our motto 'no substitute for excellence' drives our academic endeavours. The faculty provides opportunities for further study, research, and scholarly community engagement in diverse disciplines spanning the natural, agricultural, and building sciences.

Have a look at our faculty video, which provides great insight into who we are and what we offer



Welcome to our faculty

**PROF DANIE VERMEULEN**  
**DEAN**

**Kovsie**  
**2B**

 @Kovsie2B

 @Kovsie2b

 @UFS\_Kovsie2B

Scan the QR code  
and check out the  
different careers.





## FACULTY OF NATURAL AND AGRICULTURAL SCIENCES

The faculty has three broad areas of training and research:

### AGRICULTURAL SCIENCES

- The choice of Agricultural Science (BScAgric) degrees comprises disciplines such as Animal Science, Wildlife Production, Agrometeorology, Agronomy, Grassland Sciences, Soil Science, Agricultural Economics, Plant Breeding, and Plant Pathology. The Bachelor of Agriculture (BAgric) degrees include Agricultural Extension, Agricultural Management, Animal Production Management, Crop Production Management, Mixed Farming Management, Irrigation Management, Wildlife Management, and Agricultural Economics. The UFS is located in the heart of the food basket of South Africa – the agricultural hub. Our wide variety of agricultural programmes reflects the role of the UFS in creating sustainable food production and food security for our country.

### NATURAL SCIENCES

- Our expertise in the Natural Sciences includes Mathematics, Mathematical Statistics, Actuarial Science, Chemistry, Physics, Engineering Sciences, Geography, Geology, Biological Sciences, Computer Science and Informatics, and Consumer Science. On the Qwaqwa Campus, unique programmes such as Life Sciences, Tourism and Polymer Science, are offered.

### BUILDING SCIENCES

- In the Building Sciences you can study Construction Economics and Management, as well as Architecture.

Our faculty is a vibrant place that attracts both national and international students as a result of its stimulating curriculum. We are an engaged faculty whose interaction with its community is integrated with research and teaching.

Visit the webpages of our faculty, departments, and centres to see what study opportunities are available in the Natural, Agricultural, and Building Sciences: [www.ufs.ac.za/natagri](http://www.ufs.ac.za/natagri)

## GENERAL REGULATIONS AND RULEBOOK:

For more information, visit [www.ufs.ac.za/natagri](http://www.ufs.ac.za/natagri) and click on Rulebook (or visit: <https://www.ufs.ac.za/natagri/faculty-of-natural-and-agricultural-sciences-home/academic-information/yearbooks>) or contact any of the staff members indicated at the respective programmes.

The information in this faculty programme booklet should be used in addition to the Rulebook of the Faculty of Natural and Agricultural Sciences. Due to limited space, it is advised that prospective students maintain an AP score of at least 32 (besides other admission requirements) to gain entrance into non-selection BSc programmes. Students need to pass modules in the first semester of study according to the faculty rules and regulations in order to continue with studies in the second semester.

## ORIENTATION AND CURRICULUM COMPOSITIONS

---

During the orientation week at the beginning of the academic year, the programme directors will discuss curriculum compositions with each student to clear up any uncertainties. It is VERY important that first-year students attend this orientation to finalise registration.

### THIS FACULTY IS THE RIGHT CHOICE:

---

- Market-orientated programmes designed for a wide variety of opportunities.
- Quality control to ensure that your degree is in demand.
- A unique faculty with a wide variety of disciplines.
- Postgraduate programmes designed for easy access to advanced degrees.
- Research of high quality, which is a prerequisite for quality teaching.
- Contact teaching is in English.
- Our students are our important clients.
- We proudly offer programmes on all three campuses, i.e. South Campus (SC), Bloemfontein Campus (BC), and Qwaqwa Campus (QC).

*Isn't it amazing how working with the smallest elements in the universe, we in the Faculty of Natural and Agricultural Sciences can make you understand the bigger picture in the Agricultural, Natural, and Building Sciences?*

## 2020 NATIONAL LIST OF OCCUPATIONS HIGH IN DEMAND

---

The Faculty of Natural and Agricultural Sciences offers programmes that lead to employment in specific occupations that are high in demand in the South African labour market. Occupations in high demand, are those occupations that show relatively high employment growth based on past, present and future trends and that are currently in shortage (Government Gazette, 26 November 2020).

By registering for one of the respected programmes in the Faculty of Natural and Agricultural Sciences, you will contribute to the economic development and growth of South Africa and will increase your chances of employment. Graduates from the UFS are highly sought after.

Architect Web designer **Physicist**  
Network analyst **Software developer** Data scientist ICT systems analyst  
**Construction project manager** Mixed crop and livestock farmer  
Industrial production manager Agricultural farm manager Horticultural farmer  
Chief Information Officer **Quantity surveyor** App Developer  
Data Management **Crop produce analyst** **Chemist**  
ICT project manager Industrial engineer Food and beverage scientist  
Clothing and textile **Biologist** Materials scientist Agricultural engineer  
**Geologist** **Geophysicist**  
Actuary IT Manager **Careers**  
Meteorologist Civil engineer

# APPLICATIONS AND ADMISSIONS TO STUDY AT THE UFS



## IMPORTANT APPLICATION OPENING DATES:

Date	Programmes for which applications open
1 April 2021	Applications to study any undergraduate programme offered on the Bloemfontein and Qwaqwa Campuses in 2022

## IMPORTANT APPLICATION CLOSING DATES:

Date	Programmes for which applications close
31 July 2021	Architecture Construction Economics and Management
31 August 2021	International undergraduate applications
30 September 2021	Actuarial Science All non-selection programmes Forensic Sciences Geology Physics with Engineering Science Subjects

APPLICATION TO **STUDY AT THE UFS IS FREE**

*You can apply online* 



## WHAT DO YOU NEED TO STUDY AT THE UNIVERSITY OF THE FREE STATE?

For degree studies at the University of the Free State, we expect that

- you have an NSC or NCV with an endorsement that allows entrance to degree studies (Bachelor's degree) or an equivalent qualification;
- you meet all the minimum admission requirements for the programme you intend to study. Meeting the minimum admission requirements for your chosen/intended programme of study does not guarantee admission, as limited spaces are available in each programme;
- you have a minimum admission point (AP) of 32 that is required to study in the Faculty of Natural and Agricultural Sciences, unless stated otherwise.
- you have a minimum level of 4 (50%) in English Home Language or English First Additional Language; and
- you must pass certain school subjects with a minimum level of achievement in order to take a certain university module. For example, you must get a mark of 70% for Mathematics in Grade 12 if you plan to study BSc majoring in Physics with Engineering subjects. Please refer to the sections on the specific admission requirements, which also includes the respective compulsory subjects and achievement levels required per programme.

## HOW DO YOU APPLY?

---

Apply online at <https://apply.ufs.ac.za>. Keep your mobile phone and an active email address ready, as you require both to access and complete the online application form.

Proceed through all the steps and submit your electronic application. Make sure that you complete the application form properly, e.g. if you need on-campus residence accommodation or financial aid, indicate this in the relevant section.

Upload copies of the following in PDF or JPEG format when you apply for undergraduate studies:

- Your ID if you are a South African citizen
- Your passport if you are an international student
- Your parent's ID or passport if you are younger than 18
- Your final Grade 11 results with the school's stamp
- Grade 12 June results with the school's stamp as soon as it becomes available
- National Senior Certificate (NSC) if you have already matriculated
- Your academic record, only if you are/were a student at another institution of higher learning
- USAf accreditation from the examination board for South African universities. Apply to [mb.usaf.ac.za](mailto:mb.usaf.ac.za) for conditional exemption, foreign conditional exemption, or mature age conditional exemption.

**For assistance, contact:**  
+27 51 401 9666 or  
[studentadmin@ufs.ac.za](mailto:studentadmin@ufs.ac.za)



The online application is quick and easy – no hassle, no fuss! It has an easy and modern design and is mobile- and tablet-friendly. You can apply using any device. You can expect a quicker response time if you apply online.

## CONFIDENTIALITY CLAUSE

---

The UFS confirms that all personal information provided on your application form will be treated confidentially and will not be sold to a third party or used for commercial or related purposes.

The UFS further confirms that your personal information will only be used for purposes relating to your potential relationship with the UFS as a student, including, but not limited to the processing of your application to study at the UFS, effecting registration at the UFS, and for any communication purposes related to your application and/or registration to study at the UFS.

## ADMISSION

---

***Pay attention to the following important information:***

- The UFS reserves the right to change the minimum requirements of each programme or any other information without notifying you.
- There are specific admission requirements that you should meet if you want to study at any South African university. If you finished school in or after 2008 and have a National Senior Certificate (NSC), you need to have a performance level of at least 4 (50%) in four (4) of the seven (7) subjects included in your NSC subject package to apply for admission to a Bachelor's degree at any South African university.
- All admission requirements apply to first-year students in 2022.
- Admission to study at the UFS is dependent on the following:
  - Your application should meet all the minimum requirements for the programme
  - The programme must have available space and capacity to admit students
  - You have to submit valid school results with your application

- Due to limited space available, it is advised that prospective students maintain an AP score of at least 32 (besides other admission requirements) to gain entrance into non-selection programmes offered in the Faculty of Natural and Agricultural Sciences.
- Students need to pass modules in the first semester of study according to the faculty rules and regulations in order to continue with studies in the second semester.
- A minimum performance level of 5 (60%) in Mathematics. Depending on the programme you are interested in, a higher performance level in Mathematics will be required.
- Both Life Sciences and Physical Science will be required for admission to most BSc programmes; however, there are programmes where you require either Life Sciences or Physical Science. Consult the Faculty Rulebook for more information.
- Participation in the NBT tests for Language and Mathematics is required.
- Applications for all non-selection programmes close on 30 September 2021.

The admission requirements are a broad indication for entrance into the Faculty of Natural and Agricultural Sciences. Make sure you know the admission requirements of the programme you are interested in.

*Note: It is very important that you study the Faculty Rulebook at [www.ufs.ac.za/natagri](http://www.ufs.ac.za/natagri) or contact the specific programme director or the faculty manager, as any one of the minimum admission requirements of any programme can be changed without prior notification.*

## CALCULATION OF THE ADMISSION POINT

An admission point (AP) consisting of seven levels is used. Points will be awarded for six academic modules.

Note: No points will be awarded for achievement levels lower than 30%:

Percentage	7 (90–100%)	7 (80–89%)	6 (70–79%)	5 (60–69%)	4 (50–59%)	3 (40–49%)	2 (30–39%)
AP	8	7	6	5	4	3	2

One point is awarded for Life Orientation (LO) from achievement Level 5 (60%) or higher.

## DISCLAIMER – IMPORTANT NOTICE

Kindly take note that this faculty programme booklet is aimed at prospective undergraduate students wishing to apply for a place at the University of the Free State (UFS) and who wish to start their studies at the UFS during the 2022 academic year. The faculty programme booklet accordingly describes and outlines the programmes and services offered by the UFS, as well as the minimum admission requirements for each programme, but must be read in conjunction with the policies, rules, and regulations of the UFS (as may be amended from time to time). In order to be considered for selection in a programme, an applicant is required to comply with the programme's minimum admission criteria in respect of the total AP score, subject-specific requirements (as determined per programme), and faculty/department-specific requirements. However, due to limited space, fulfilling all the minimum entry (admission) requirements does not guarantee acceptance to study at the UFS, or admission to any particular programme offered by the UFS.

The UFS makes every effort to ensure that the information provided in this faculty programme booklet is accurate and up to date at the time of going to press. However, it may be necessary for the UFS to make some changes to the information presented in the faculty programme booklet following publication – for example, where it is necessary to reflect changes in policy, practice or theory, or if an accrediting body necessitates requirements to be amended. Furthermore, certain programmes may only be offered if there are a sufficient number of applicants.

The UFS undertakes to implement all reasonable steps to provide the services (including, but not limited to, presentation of the programmes) described in the faculty programme booklet. However, it does not

guarantee the provision of such services or the presentation of any or all programmes described herein. Should circumstances beyond the control of the UFS interfere with its ability to provide the services or presentation of any programme described herein, the UFS undertakes to use all reasonable measures to minimise any disruption to the services.

Furthermore, the UFS reserves the right to make amendments to admission requirements if and when necessary. It reserves the right to withdraw, wholly or in part, the delivery of programmes. Applicants and students in affected programmes will be informed before the commencement of their studies for the academic year concerned.

**Note: The admission requirements as indicated below are guidelines. Meeting the minimum requirements for your chosen/intended programme of study does not guarantee admission, as limited space is available in each programme. Final selection and admission are subject to the availability of space, academic results, and other admission requirements where applicable.**

## ABBREVIATIONS:

From this point forward, we will use these abbreviations instead of the full terms:

- **NSC:** National Senior Certificate
- **AP:** Admission point
- **APC:** Academic Plan Code
- **LOI:** Language of Instruction
- **MATHS:** Mathematics
- **MATHS LIT:** Mathematical Literacy
- **PS:** Physical Sciences
- **LS:** Life Sciences
- **AS:** Agricultural Sciences
- **NBT:** Compulsory National Benchmark Tests
- **AL:** Academic Literacy Test (NBT)
- **QL:** Quantitative Literacy Test (NBT)
- **MT:** Mathematics Test (NBT)
- **BC:** Bloemfontein Campus
- **QC:** Qwaqwa Campus
- **SC:** South Campus

The Bachelor's degree (B) makes provision for four fields of study, namely:	The Bachelor of Science (BSc) and the Bachelor of Science Honours degrees make provision for seven fields of study, namely:		The Bachelor of Science in Agriculture (BSc (Agriculture)) degree makes provision for five fields of study, namely:
<ul style="list-style-type: none"> <li>• Architecture</li> <li>• Agricultural Sciences</li> <li>• Consumer Sciences</li> <li>• Computer Information Systems</li> </ul>	<ul style="list-style-type: none"> <li>• Biological Sciences</li> <li>• Building Sciences</li> <li>• Chemical and Physical Sciences</li> <li>• Consumer Science</li> </ul>	<ul style="list-style-type: none"> <li>• Geosciences</li> <li>• Computer Science and Informatics</li> <li>• Mathematical Sciences</li> </ul>	<ul style="list-style-type: none"> <li>• Animal, Wildlife and Grassland Sciences</li> <li>• Plant Breeding</li> <li>• Plant Pathology</li> <li>• Soil, Crop and Climate Sciences</li> <li>• Agricultural Economics</li> </ul>

### GENERAL ENQUIRIES:

Webpage: [www.ufs.ac.za/natagri](http://www.ufs.ac.za/natagri) | [natagri@ufs.ac.za](mailto:natagri@ufs.ac.za)  
 Elfrieda Lotter: +27 51 401 2531 | [lottere@ufs.ac.za](mailto:lottere@ufs.ac.za) (Marketing Manager)  
 Elzmarie Oosthuizen: +27 51 401 2934 | [oosthuizenem@ufs.ac.za](mailto:oosthuizenem@ufs.ac.za) (Teaching and Learning Manager)  
 Tracy Isaacs: +27 51 401 9423 | [isaacstl@ufs.ac.za](mailto:isaacstl@ufs.ac.za) (Acting Faculty Manager)  
 Dilahlwane Mohono: +27 58 718 5284 | [mohonodm@ufs.ac.za](mailto:mohonodm@ufs.ac.za) (Faculty Manager, Qwaqwa Campus)

## EXTENDED CURRICULUM PROGRAMMES

Prospective students who do not meet the minimum requirements to enrol for the above mainstream programmes, will be considered for placement in the Extended Curriculum Programme (ECP). Placement is subject to the availability of space.



The ECP is designed to equip students who do not meet the minimum requirements with the necessary competencies to be successful in their studies. Academic support and skills development are integrated with regular academic work. To be considered for placement in the ECP, prospective students have to apply for the mainstream programmes.

Contact Elrich Jacobs: +27 51 401 3726 | jacobses@ufs.ac.za or  
Elzmarie Oosthuizen: +27 51 401 2934 | oosthuizenem@ufs.ac.za  
for the different options available in Agricultural Sciences and Natural Sciences and the curricula  
offered in the Extended Curriculum Programmes.

## AGRICULTURAL SCIENCES

---

In terms of agriculture, the faculty offers a wide variety of specialised programmes that will give you access to careers in agricultural management, agricultural economics, animal sciences, agrometeorology, agronomy, soil sciences, grassland sciences, wildlife production, plant breeding, plant pathology, crop production, mixed farming, and irrigation management.

**Research focus areas in the following departments of Agricultural Sciences are:**

**ANIMAL SCIENCE:** Animal breeding / Monogastric nutrition / Ruminant nutrition / Animal physiology / Grassland science / Wildlife science.

**AGRICULTURAL ECONOMICS:** Production economics / Environmental issues such as water allocation, scarcity, and drought / Livestock economics / Agricultural entrepreneurship / Agricultural marketing.

**PLANT BREEDING:** Molecular plant breeding / Conventional breeding / Wheat-quality and crop-nutritional value research (SARChI Chair).

**PLANT PATHOLOGY:** Cereal-rust diseases / Soil microbial ecology / Mycology / Epidemiology / Disease resistance and quality of field crops (SARChI Chair).

**SOIL, CROP and CLIMATE SCIENCES:** Hydro-physical properties of selected ecotopes / Water footprint of beer (barley) / Management of salinisation of irrigated land / Risk-based, site-specific irrigation-water quality guidelines / Geographical distribution and utilisation of soil / Sustainable cultivation of plants / Effect of weather and climate on crops.

**SUSTAINABLE FOOD SYSTEMS AND DEVELOPMENT:** Sustainable food system and Agriculture / Food security and sustainable development / Food Processing and technology / Marketing and consumption of food / Management of the food value chain / Food Safety and Quality assurance / Food fraud and Food Loss / Regenerative agriculture and waste management within food systems / Agricultural extension and rural development / Sensory analysis and gastronomy / Communication to support sustainable food production / Consumer awareness of sustainability practices.

**In Agriculture, we offer the following qualifications: a three-year Bachelor of Agriculture degree (BAgric), a three-year Bachelor of Science degree in Agricultural Economics, and a four-year Bachelor of Agricultural Science degree (BScAgric).**

## BAgric DEGREES

---

**Duration of studies:** Three years

The objective of the degree is to train students who will be able to apply agricultural knowledge practically at farm level, as well as in agriculture-related organisations. The BAgric qualification will allow individuals to apply their knowledge in the fields of resource utilisation, agricultural production, processing, management, and communication.

**Careers/fields of study:**

- Agricultural adviser, extension and training officer.
- Managerial positions in a wide range of agri-businesses and farmer enterprises.
- Representatives in agrochemical (pharmaceuticals, fertilisers, pesticides, etc.) and animal-feed companies.

## THE FOLLOWING PROGRAMMES IN AGRICULTURE ARE PRESENTED ON THE BLOEMFONTEIN CAMPUS:

Due to limited space available, it is advised that prospective students maintain an AP score of at least 32 (besides other admission requirements) to gain entrance into non-selection programmes.

Students need to pass modules in the first semester of study according to the faculty rules and regulations in order to continue with studies in the second semester.

### Enquiries:

All Agricultural programmes:

Soil, Crop and Climate Sciences: Dr Elmarie van der Watt: +27 51 401 2713 | vdwatte@ufs.ac.za  
www.ufs.ac.za /scc

Animal Science: Dr Mike Fair: +27 51 401 9056 | fairmd@ufs.ac.za  
www.ufs.ac.za /animal

Agricultural Economics: Dr Frikkie Maré: +27 51 401 3220 | marefa@ufs.ac.za  
www.ufs.ac.za /agricecon

Sustainable Food Systems and Development: Prof Johan van Niekerk: +27 51 401 3765  
vniekerkja@ufs.ac.za | www.ufs.ac.za /sfsd

## Bachelor of Agriculture (BAgric) with the following majors:

Programme Description		Minimum Admission Requirements				
Programme	APC	AP	LOI	MATHS	NBT	CAMPUS
BAgric majoring in Agricultural Extension	BC530147	30	4 (50%)	3 (40%)	AL, QL, MT	BC
BAgric majoring in Agricultural Management	BC530152	30	4 (50%)	3 (40%)	AL, QL, MT	BC
BAgric majoring in Animal Production Management	BC530101	30	4 (50%)	3 (40%)	AL, QL, MT	BC
BAgric majoring in Crop Production Management	BC530102	30	4 (50%)	3 (40%)	AL, QL, MT	BC
BAgric majoring in Irrigation Management	BC530172	30	4 (50%)	3 (40%)	AL, QL, MT	BC
BAgric majoring in Mixed Farming Management	BC530103	30	4 (50%)	3 (40%)	AL, QL, MT	BC
BAgric majoring in Wildlife Management	BC530190	30	4 (50%)	3 (40%)	AL, QL, MT	BC
For the above listed programmes, Mathematical Literacy on Level 7 (80%) will also be accepted IF the AP is 31 or above (excluding BAgric majoring in Agricultural Economics).						
BAgric majoring in Agricultural Economics	BC530111	30	4 (50%)	4 (50%)	AL, QL, MT	BC

## BSc (Agriculture) DEGREES:

**Duration of studies:** Four years, unless indicated otherwise

This degree must be considered if you are interested in qualifying as an agricultural scientist who, through research and practically orientated development, wants to expand your knowledge. There are different learning programmes for the BScAgric degree, with combinations between the following fields of specialisation: Agricultural Economics, Agronomy, Agrometeorology, Animal Science, Food Science, Grassland Science, Irrigation Science, Plant Breeding, Plant Pathology, Soil Science, etc. These study fields will enable you to qualify for one of the following careers:

### Careers/fields of study:

Entomologist • Soil scientist • Agricultural economist (through BSc Agricultural Economics only) • Agricultural manager • Plant breeder • Agro-meteorologist • Animal physiologist • Plant pathologist • Animal nutritionist • Animal breeder • Grassland scientist • Food scientist • Agronomist or plant production specialist • Irrigation scientist

## THE FOLLOWING PROGRAMMES ARE AVAILABLE:

- Learning programmes in AGROMETEOROLOGY
- AGRONOMY, SOIL SCIENCE

- ANIMAL, WILDLIFE AND GRASSLAND SCIENCES
- PLANT BREEDING AND PLANT PATHOLOGY

## BSc (Agriculture)

Programme Description			Minimum Admission Requirements						
Programme	Academic Plan Code	AP	LOI	MATHS	LS	PS	AS	Compulsory NBT	Campus
BSc (Agriculture) majoring in Agrometeorology	BC540012	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc (Agriculture) majoring in Agronomy	BC540013	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc (Agriculture) majoring in Animal Science	BC540015	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc (Agriculture) majoring in Grassland Science	BC540036	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc (Agriculture) majoring in Plant Breeding	BC540041	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc (Agriculture) majoring in Plant Pathology	BC540042	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc (Agriculture) majoring in Soil Science	BC540044	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc (Agriculture) majoring in Wildlife Science	BC540089	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC

**VERY IMPORTANT: TWO of either Life Sciences / Agricultural Sciences / Physical Science WITH Mathematics, are required for all BSc Agriculture programmes, excluding only BSc Agricultural Economics.**

## BSc Agricultural Economics (three years)

Programme Description			Minimum Admission Requirements			
Programme	APC	AP	LOI	MATHS	NBT	Campus
BSc majoring in Agricultural Economics	BC431100	32	4 (50%)	5 (60%)	AL, QL, MT	BC

The learning programme in Agricultural Economics offers only ONE option. It focuses mainly on Agricultural Economics and Statistics as majors. In the first year, Mathematics, Statistics, Biology, and Agricultural Economics are compulsory, with a choice between three electives: Soil Science; Animal, Wildlife and Grassland Science; and Biology.

In the second year, Agricultural Economics, Economics and Statistics are compulsory, with a choice between the electives: Agronomy, Soil Science, Animal Science, and Grassland Science.

In the third and final year, Agricultural Economics and Statistics are compulsory. The electives to choose from are: Agronomy, Animal Science, Soil Science, and Grassland Science.

### Careers/fields of study:

- Animal Science: animal breeder, animal physiologist, animal nutritionist, grassland scientist, agricultural adviser, private consultant, farmer, academic, teacher, extension officer, and researcher.
- Soil, Crop and Climate Sciences: agronomist, soil scientist, horticulturist, agro-meteorologist, researcher, agricultural adviser, and consultant.
- Plant Sciences: plant pathologist or plant breeder at private or public institutions involved in crop research and development in the agricultural, horticultural, and forestry industries.

## NATURAL SCIENCES

---

Here, the frontiers of knowledge are constantly shifted through fundamental research and new technology development in support of our efforts to keep in step with the challenges of an ever-changing world. Our expertise in the Natural Sciences includes Mathematics, Mathematical Statistics, Actuarial Science, Chemistry, Physics, Geography, Geology, Biological Sciences, Information Technology and Computer Science, and Consumer Science.

**Research focus areas in the following departments in Natural Sciences are:**

**CHEMISTRY:** Analytical Chemistry /, Inorganic Chemistry / Organic Chemistry / Physical Chemistry / Polymer Science.

**COMPUTER SCIENCE AND INFORMATICS:** Computer Science education / Eye-tracking research / Human-computer interaction / Natural language processing (machine-learning) / Virtual reality.

**GENETICS:** Behavioural Genetics / Conservation and Population Genetics / Human Genetics / Molecular Systematics / Plant Molecular Genetics and Genomics / Forensic Genetics / Forensic Science (including Forensic Entomology and Forensic Chemistry).

**GEOGRAPHY:** Afromontane research / Physical Geography, GIS / Remote sensing / Human Geography / Rural Geography / Environmental management.

**GEOLOGY:** Bushveld Complex research / Environmental Geology and Geochemistry research / Karoo Sedimentology research / Mineral resource-management research / Namaqua Metamorphic Province research / Planetary processes research / Ventersdorp LIP research / Drone-based Photogrammetric research / Biogeochemical research focused on bioremediation of industrial and mining water as well as bioaugmentation of agricultural activities.

**MATHEMATICAL STATISTICS AND ACTUARIAL SCIENCES:** Bayesian analysis / Extreme value theory / Big data / Actuarial and Finance / Multivariate analysis / Biostatistics / Reliability theory / Multiple imputation.

**MATHEMATICS AND APPLIED MATHEMATICS:** Graph Theory, Algebra, Computational Finance, Numerical Methods for Linear and Nonlinear PDE's, Spectral Methods, Dynamical Systems, Differential Geometry, Constructing Tests of General Relativity, Signal Processing and more.

**MICROBIOLOGY AND BIOCHEMISTRY:** Safe and novel food products and processes / Biocatalysis and bioremediation / Improvement of human and animal health / Pathogenic yeasts (SARChI Chair).

**PHYSICS:** Energy sustainability (SARChI Chair) / Material Science / Nanoscience / Photoluminescence / Luminescent solar concentrators / Quantum dot synthesis / Astrophysics / also including two observatory projects: Boyden Observatory and Science Centre; and the Naval Hill Digital Planetarium (Old Lamont-Hussey Observatory).

### **PLANT SCIENCES:**

- Botany: Plant physiology, biochemistry and molecular biology / Phytomedicine and ethnobotany / Plant taxonomy and molecular systematics / Palaeobotany and ecology
- Plant Breeding: Molecular plant breeding / Conventional plant breeding / Wheat-quality and crop-nutritional value research (SARChI Chair)
- Plant Health Ecology
- Plant Pathology: Cereal-rust diseases / Soil microbial ecology / Mycology / Epidemiology / Disease resistance and quality of field crops.

**ZOOLOGY AND ENTOMOLOGY:** Animal ecology / Applied Agricultural Entomology / Arachnology / Aquatic Ecology / Aquatic Parasitology / Vertebrate Haemoparasite Biology / Etho-ecology / Nematology / Environmental Entomology / Dipterology / Applied Entomology / Herpetology / Veterinary Ectoparasitology.

## THE FACULTY HAS BEEN AWARDED THREE SARCHI (SOUTH AFRICAN RESEARCH CHAIRS INITIATIVE – NATIONAL RESEARCH FOUNDATION) CHAIRS, NAMELY:

- Wheat-quality and Crop-nutritional Value Research (Department of Plant Sciences)
- Energy Sustainability (Department of Physics)
- Pathogenic Yeasts (Department of Microbiology and Biochemistry)

For more information, visit [www.nrf.ac.za/division/rcce/instruments/research-chairs](http://www.nrf.ac.za/division/rcce/instruments/research-chairs)

### *In the Natural Sciences, we offer the following undergraduate qualifications:*

- Bachelor's degrees: Bachelor of Consumer Sciences (General and Food); Bachelor of Computer Information Systems.
- Bachelor of Science in: Actuarial Sciences, Agrometeorology, Astrophysics, Genetics, Behavioural Genetics, Human Molecular Biology, Biochemistry, Botany, Chemistry, Consumer Science, Construction Economics and Management (residential), Quantity Surveying and Construction Management (Compact / distance learning), Entomology, Environmental Rehabilitation, Forensic Science, Geography, Geology, Information Technology, Mathematics and Applied Mathematics, Mathematical Statistics, Microbiology, Physics, Plant Breeding, Plant Health Ecology, Plant Pathology, Statistics, Quantity Surveying (residential and distance learning), Zoology.

Candidates who do not comply with the Faculty of Natural and Agricultural Sciences' entry requirements for mainstream BSc studies, can gain admission to the university through the BSc Extended Curriculum Programmes. The programmes provide students an opportunity to improve their skills and competencies with the aim of gaining access to mainstream studies after successful completion of the first year. These programmes also address, through courses in Skills and Competencies in Lifelong Learning, the student's wider needs with regard to quality of personal life, study and reading skills, self-assertiveness, problem solving, and other generic competencies. Students also attend an academic language course in English to improve reading and writing skills for higher-education purposes. Please check the admission requirements for these programmes. For more information on this, please contact the programme director on +27 51 401 2934.

## BACHELOR OF SCIENCE (BSc) DEGREES IN THE FOLLOWING PROGRAMMES:

### LEARNING PROGRAMMES IN BIOLOGICAL SCIENCES

**Duration of programme:** Three years

#### **Enquiries: Programme Directors:**

Genetics, Behavioural Genetics: Zurika Murray: +27 51 401 2776 | [murrayz@ufs.ac.za](mailto:murrayz@ufs.ac.za)  
[www.ufs.ac.za/genetics](http://www.ufs.ac.za/genetics)

Botany, Plant Breeding, Plant Pathology, Plant Health Ecology: Prof Botma Visser: +27 51 401 3278  
[visserb@ufs.ac.za](mailto:visserb@ufs.ac.za) | [www.ufs.ac.za/plant](http://www.ufs.ac.za/plant)

Zoology, Entomology: Dr Candice Jansen van Rensburg: +27 51 401 9357 | [jvrensc@ufs.ac.za](mailto:jvrensc@ufs.ac.za)  
[www.ufs.ac.za/ze](http://www.ufs.ac.za/ze)

Biochemistry: Dr Frans O'Neill: +27 51 401 7553 | [oneillfh@ufs.ac.za](mailto:oneillfh@ufs.ac.za) | [www.ufs.ac.za/mb](http://www.ufs.ac.za/mb)

Microbiology: Prof Koos Albertyn: +27 51 401 2223 | [albertynj@ufs.ac.za](mailto:albertynj@ufs.ac.za) | [www.ufs.ac.za/mb](http://www.ufs.ac.za/mb)

Forensic Sciences: Dr Karen Ehlers: +27 51 401 3978 | [ehlersk@ufs.ac.za](mailto:ehlersk@ufs.ac.za) | [www.ufs.ac.za/genetics](http://www.ufs.ac.za/genetics)

**THE FOLLOWING PROGRAMMES ARE PRESENTED ON THE BLOEMFONTEIN CAMPUS:**

Programme Description		Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	LS	PS	NBT	Campus
BSc majoring in Behavioural Genetics	BC433118	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Genetics and Microbiology	BC433139	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Genetics and Physiology	BC433180	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Genetics and Zoology	BC433149	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Biochemistry and Botany	BC431920	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Biochemistry and Entomology	BC431927	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Biochemistry and Genetics	BC431931	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Biochemistry and Microbiology	BC431939	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Biochemistry and Physiology	BC431980	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Biochemistry and Statistics	BC431946	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Biochemistry and Zoology	BC431949	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Botany and Entomology	BC432027	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Botany and Genetics	BC432031	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Botany and Microbiology	BC432039	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Botany and Plant Breeding	BC432041	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Botany and Plant Pathology	BC432042	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Botany and Zoology	BC432049	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Entomology and Genetics	BC432731	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Entomology and Microbiology	BC432739	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Entomology and Zoology	BC432749	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Microbiology and Statistics	BC433946	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Microbiology and Zoology	BC433949	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Plant Health Ecology	BC432082	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Rangeland and Wildlife Ecology	BC433689	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC

**THE FOLLOWING PROGRAMMES IN BIOLOGICAL SCIENCES ARE PRESENTED ON THE QWAQWA CAMPUS:**

**Enquiries:** Dr Tom Okello: +27 58 718 5478 | okellotw@ufs.ac.za

Programme Description		Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	LS	PS	NBT	Campus
BSc majoring in Botany and Life Sciences	QC432065	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	QC
BSc majoring in Life Sciences	QC436500	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	QC
BSc majoring in Zoology and Life Sciences	QC434965	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	QC

**Careers / fields of study:**

**GENETICS:** Technicians in agricultural, forestry, seed, pest control, and medical research institutes, as well as forensic institutions (e.g. police services).

**PLANT SCIENCES:** Careers in the educational, agricultural, environmental, and biotechnological sectors as botanist, plant breeder, plant pathologist, researcher, teacher, environmental consultant, conservationist, laboratory or research assistant, and entrepreneur.

**MICROBIOLOGY AND BIOCHEMISTRY:** Analysts, technicians, researchers, academics, and entrepreneurs in research and development for the production and analysis of vaccines and drugs, as well as diagnostic tests for use in human, animal, and plant health, whether in industry, academia, or research institutes. Laboratory and production assistants and managers working in quality and pollution control in the food, medical, and chemical sectors (e.g. breweries, meat, dairy, and grain industries, vaccine, drug, chemicals and paper manufacturing, as well as water purification).

**ZOOLOGY AND ENTOMOLOGY:** Laboratory or research assistant, academic, researcher, environmental consultant, conservationist in environmental or agricultural sectors; education and medical institutes or as an entrepreneur.

**BEHAVIOURAL GENETICS (BC433118)**

**DIFFERS FROM THE ABOVE BIOLOGY PROGRAMMES:**

**Duration of study:** Three years

**Enquiries:** Mrs Zurika Murray: +27 51 401 2776 | murrayZ@ufs.ac.za | www.ufs.ac.za /genetics

Behavioural Genetics is a combination of Psychology and Genetics. The main purpose of this subject area is to study the interaction between the environment and hereditary behavioural patterns. After completion of this study, the student will have a thorough basic knowledge of Behavioural Genetics. The student will be capable of specialising on postgraduate level (up to PhD) in Behavioural Genetics, Genetics or Psychology. Postgraduate training is essential in order to work as a behavioural geneticist.

**Careers/fields of study:**

Technicians in medical research and diagnostic institutes. A postgraduate qualification is highly recommended.

## FORENSIC SCIENCES

**Duration of study:** Three years

**Enquiries:** Dr Karen Ehlers: +27 51 401 3978 | ehlersk@ufs.ac.za | www.ufs.ac.za /genetics

Admission is subject to selection. This programme focuses on how science can be used to analyse and interpret different crime scenes. This includes Chemistry, Physics, Genetics, and Entomology. After completion of this study, the student will have a thorough basic knowledge of the physical and biological science aspects of Forensic Sciences. The student will be able to specialise on postgraduate level (up to PhD) in Forensic Sciences, Forensic Genetics, Forensic Chemistry, Forensic Entomology, (depending on final-year majors). This programme is presented only on the Bloemfontein Campus.

### **Careers/fields of study:**

Crime-scene investigators and analysts in forensic laboratories. A postgraduate qualification is highly recommended.

Programme Description				Minimum Admission Requirements				
Programme	APC	AP	LOI	MATHS	LS	PS	NBT	Campus
BSc majoring in Forensic Sciences	BC433031	34	4 (50%)	A cumulative AP score of at least 17 for these three subjects is compulsory.			AL, QL, MT	BC
Admission to BSc majoring in Forensic Sciences is subject to selection. A minimum AP of <b>34</b> is required, <b>with a cumulative AP score of at least 17 for Mathematics, Life Sciences, and Physical Science</b> . NBT results will be used for selection and admission purposes. No person with a criminal record will be admitted to this programme. Closing date for applications is 30 September 2021.								

## LEARNING PROGRAMMES IN CHEMICAL AND PHYSICAL SCIENCES

**Duration of study:** Three years

**Enquiries:** Dr Johan Venter: +27 51 401 3336 | venterja@ufs.ac.za | www.ufs.ac.za/chem | www.ufs.ac.za/physics

**Learning programmes in Chemical and Physical Sciences offer the following options:**

- Physics and Chemistry
- Physics and Astrophysics
- Physics and Agrometeorology
- Physics and Engineering subjects
- Chemistry in combination with biological subjects as the other majors:
  - Chemistry and Botany
  - Chemistry and Microbiology
  - Chemistry and Biochemistry

In other programmes, Physics can also be taken in combination with Mathematics, Geology, and Computer Science. In similar programmes, Chemistry can be taken in combination with Forensic Science, Mathematics, Geology, and Computer Science.

### **Physics:**

This learning programme makes provision for the student who is interested in Physics. Careers include working in industry, research laboratories, and teaching at schools or universities. This programme is well suited to careers in many manufacturing industries (mining, agriculture, and metallurgy) or engineering firms concerned with mechanical, civil, telecommunication and/or electronic and electrical activities. Careers in design, energy production, computer sciences, advanced instrumentation development, and modelling are



also possible. Postgraduate studies can be pursued in Physics, provided that the necessary prerequisites are met. Combined career directions, for example, combinations of Physics and Law (e.g. patent lawyer) or Physics and economic fields (e.g. financial modelling or risk assessment) can also be considered after further studies in these directions.

## Chemistry:

This learning programme makes provision for the student who is interested in Chemistry. Careers include working in industry, research laboratories, and teaching at schools or universities. Postgraduate studies can be pursued in Chemistry if the prerequisites are met.

### Careers/fields of study:

Careers in research laboratories, e.g. CSIR and Sasol; academia, e.g. university lecturing and research; industry, e.g. petrochemical, rubber, manufacturing, paint, food, mining, water purification, etc.

Careers in research laboratories, e.g. CSIR and Mintek; academia, e.g. university lecturing and research; industry, e.g. manufacturing, energy, nuclear, telecommunications, instrumentation, modelling, Bureau of Standards.

## THE FOLLOWING PROGRAMMES ARE OFFERED ON THE BLOEMFONTEIN CAMPUS:

Programme Description		Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	LS	PS	NBT	Campus
BSc majoring in Chemistry and Biochemistry	BC432119	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Chemistry and Botany	BC432120	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Chemistry and Microbiology	BC432139	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Chemistry and Physics	BC432140	32	4 (50%)	5 (60%)	N/A	5 (60%)	AL, QL, MT	BC

### Notes:

- If Biological subjects are the second major, Life Sciences at Level 5 (60%) is required.
- If you intend to register for Chemistry as a major, take note that only 80 students in the second year and only 60 students in the third year will be admitted, based on academic excellence.

## ASTROPHYSICS:

**Duration of study:** Three years

**Enquiries:** Dr Johan Venter: +27 51 401 3336 | [venterja@ufs.ac.za](mailto:venterja@ufs.ac.za) | [www.ufs.ac.za/physics](http://www.ufs.ac.za/physics)

In this learning programme, Astrophysics is presented together with Physics on the Bloemfontein Campus. Students who have successfully completed their studies, can pursue postgraduate studies in Physics with Astrophysics modules, which can lead to an MSc and a PhD in Physics, specialising in Astrophysics.

### Careers/fields of study:

Careers at research institutes, e.g. SAAO, SKA, HarRAO, and HMO; academia, e.g. university lecturing and research; space science (satellite applications) or public education centres, e.g. planetariums or museums.

Programme Description		Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	PS	NBT	Campus	
BSc majoring in Physics and Astrophysics	BC434017	32	4 (50%)	6 (70%)	5 (60%)	AL, QL, MT	BC	

## PHYSICS AND AGROMETEOROLOGY:

**Duration of study:** Three years

**Enquiries:** Dr Johan Venter: +27 51 401 3336 | venterja@ufs.ac.za | www.ufs.ac.za/physics

By combining Physics with Agrometeorology, students get the opportunity to apply numerous physical principles to agrometeorological applications, such as remote sensing, developing and calibrating instrumentation, numerical model refinement, thermodynamical and microphysical processes in the atmosphere, and weather forecasting in general. This is a popular combination with potential employers.

### **Careers/fields of study:**

Careers at research institutions, e.g. ARC and SAWS; private consultation, e.g. irrigation scheduling; meteorological instrumentation companies, e.g. Campbell Scientific; academia, e.g. university lecturing and research.

Programme Description		Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	LS	PS	NBT	Campus
BSc majoring in Physics and Agrometeorology	BC434012	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC

## PHYSICS WITH ENGINEERING SUBJECTS:

**Duration of study:** Three years

**Enquiries:** Dr Johan Venter: +27 51 401 3336 | venterja@ufs.ac.za | www.ufs.ac.za/physics

This is a great option, which provides an alternative route to Engineering studies at other academic institutions.

In this learning programme, the basic building blocks for Engineering are presented together with Physics. In the last semester (third year), students will have to choose between Physics and Engineering. Students who have successfully completed the programme in the Engineering option, will be able to apply for integration into the third year of study in certain Engineering degree programmes (civil, mechanical, electrical / electronic) at universities offering BEng or BScEng degrees. Integration will be subject to the availability of space in these degree programmes, the selection processes, and other requirements prescribed by the particular collaborating university.

### **Careers/fields of study:**

Engineering assistant or construction site manager; or the Physics option – this will enable graduates to either enter workplaces requiring a physics focus, or continue with postgraduate studies in Physics should they meet the entrance requirements; or the Engineering option – this will enable graduates to pursue further discipline-specific Engineering studies at other universities, such as: Agricultural Engineering, Civil Engineering, Electrical Engineering, Electronic Engineering, Mechanical Engineering, Mechatronic Engineering.

Programme Description		Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	PS	NBT	Campus	
BSc majoring in Physics and Engineering subjects	BC434026	30	4 (50%)	6 (70%)	5 (60%)	AL, QL, MT	BC	

THE FOLLOWING PROGRAMMES IN CHEMISTRY AND PHYSICS ARE PRESENTED ON THE QWAQWA CAMPUS:

## Chemistry in combination with Biological subjects:

**Duration of study:** Three years

**Enquiries:** Prof Richard Ocaya: +27 58 718 5301 | ocayaro@ufs.ac.za

This learning programme makes provision for a student who is interested in Chemistry and the Biological Sciences where the foundation of Biological systems and Chemistry is involved. It includes careers in any manufacturing industry, as well as in fields such as medicine, the pharmaceutical industry, agriculture (including livestock, crops, pest control, soil, and water), forestry, environmental, waste and pollution management, and various careers in the marine environment. Postgraduate studies may be continued in Chemistry or any of the Biological Sciences if the necessary prerequisites are met.

### Careers/fields of study:

Careers in industry, e.g. food and beverage, brewing, mining, water purification, pharmaceuticals, agriculture, forestry, pollution.

Programme Description		Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	LS	PS	NBT	Campus
BSc majoring in Chemistry and Botany	QC432120	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	QC
BSc majoring in Chemistry and Physics	QC432140	32	4 (50%)	5 (60%)	N/A	5 (60%)	AL, QL, MT	QC

## LEARNING PROGRAMMES IN CONSUMER SCIENCE

**Duration of study:** Four years

**Enquiries:** Dr Ismari van der Merwe: +27 51 401 2598 | ivnmerwe@ufs.ac.za  
www.ufs.ac.za/sfsd

Consumer Science is the study of people's needs regarding housing, clothing and food, and the management of resources to satisfy these needs. After completion of this programme, the BConsSc student will be capable of following a career as a consumer scientist, e.g. consumer consultant, designer, buyer, marketer, or quality-control inspector of consumer products. The student should also be capable of advising consumers on the management of time, energy, and other resources. The major subjects are Foods, Consumer Science, and Textiles. After completion of the BSc Consumer Science programme, the student will be able to follow a career in the food industry. The major subjects are Foods and Food Science. Learning programmes in the Consumer Science field of interest offer one option.

### Careers/fields of study:

Consumer consultant, designer, buyer, marketer or quality controller of consumer and food products, product developer, quality controller, consultant or researcher in the food industry.

THE FOLLOWING PROGRAMME IS PRESENTED ONLY ON THE BLOEMFONTEIN CAMPUS:

Programme Description		Minimum Admission Requirements					
Programme	APC	AP	LOI	MATHS	NBT	Campus	
Bachelor of Consumer Science (BConsSc)*	BC430123	30	4 (50%)	3 (40%)	AL, QL	BC	

\*For the Bachelor of Consumer Sciences, Mathematical Literacy on Level 5 (60%) will also be accepted.

# LEARNING PROGRAMMES IN GEOSCIENCES

## A. GEOLOGY

Duration of study: Three years

**Enquiries:** Programme Director: Justine Magson: +27 51 401 2373 | markramj1@ufs.ac.za  
www.ufs.ac.za /geology

**Learning programmes in GEOLOGY are subject to selection and offer SIX main options with either:**

- Geology specialisation
- Geochemistry
- Environmental Geology
- Geology and Chemistry
- Geology and Geography
- Geology and Physics

**GEOLOGY:** Upon completion of this learning programme, you may be granted access to honours studies in Geology, which will serve as a stepping-stone towards professional registration as a geologist, with job opportunities in mining, exploration, and research.

**GEOCHEMISTRY:** Upon completion of this learning programme, you may be granted access to honours studies in Geology/Geochemistry, which will serve as a stepping-stone towards professional registration as a geologist, with job opportunities in industry and academia. Upon completion of this learning programme, you will also have access to further your studies from honours level upwards in Biogeochemistry, specifically applied to industrial, mine, and agricultural bioremediation of water and bioaugmentation of agricultural activities.

**ENVIRONMENTAL GEOLOGY:** Upon completion of this learning programme, you may be granted access to honours studies in Geology/Environmental Geology, which will serve as a stepping-stone towards professional registration as a geologist, with job opportunities in industry and academia.

**GEOLOGY AND CHEMISTRY:** Upon completion of this learning programme, you may be granted access to honours studies in Geology/Geochemistry/Chemistry, which will serve as a stepping-stone towards professional registration as a geologist/chemist, with job opportunities in industry and academia.

**GEOLOGY AND GEOGRAPHY:** Upon completion of this learning programme, you may be granted access to honours studies in Geology/Geography, which will serve as a stepping-stone towards professional registration as a geologist, with job opportunities in industry, government, and academia.

**GEOLOGY AND PHYSICS:** Upon completion of this learning programme, you may be granted access to honours studies in Geology/Physics, which will serve as a stepping-stone towards professional registration as a geologist/physicist, with job opportunities in industry and academia.

**THE FOLLOWING PROGRAMMES ARE OFFERED ON THE BLOEMFONTEIN CAMPUS:**

Programme Description	Minimum Admission Requirements						
	Programme	APC	AP	LOI	MATHS	PS	NBT
BSc majoring in Environmental Geology	BC433528	30	4 (50%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Geology and Chemistry	BC433521	30	4 (50%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Geochemistry	BC433532	30	4 (50%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Geology and Geography	BC433533	30	4 (50%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Geology and Physics	BC433540	30	4 (50%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc majoring in Geology Specialisation	BC433535	30	4 (50%)	5 (60%)	5 (60%)	AL, QL, MT	BC

**Notes:**

The selection is based on academic performance.

Admission to all programmes offered in Geology is SUBJECT TO SELECTION. We select only 80 students. You will be notified of the outcome as soon as we receive your final matric results.

Closing date for applications is 30 September 2021.

**B. GEOGRAPHY**

**Duration of study:** Three years

**Enquiries:** Programme Director: Eldalize Kruger: +27 51 401 2185 | krugere@ufs.ac.za  
www.ufs.ac.za/geography

The learning programmes in Geography and the Environmental Sciences are studies on the properties and processes in the earth and on the surface, as it encompasses a holistic study of the human environment and accompanying interactions and relationships. The programmes are aimed at students who are interested in various aspects of the environment and can lead to specialisation as environmentalists. Careers in these sciences are divergent, because all institutions involved with resource utilisation are legally obliged to examine the impact of their activities on the environment. The connection of geographical information and computer technology simplifies the storage, processing, modelling, and presentation of information and expedites decision-making.

**THE FOLLOWING PROGRAMMES ARE PRESENTED ON THE BLOEMFONTEIN CAMPUS:**

Programme Description		Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	LS	PS	NBT	Campus
BSc majoring in Geography and Agrometeorology*	BC433312	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
For BSc majoring in Geography and Agrometeorology, either Life Sciences <b>OR</b> Physical Sciences on Level 5 (60%) will be accepted, <b>WITH</b> Mathematics on Level 5 (60%).								
BSc majoring in Geography and Environmental Science	BC433362	32	4 (50%)	5 (60%)	5 (60%)	N/A	AL, QL, MT	BC
BSc majoring in Geography and Geographical Information Systems	BC433369	32	4 (50%)	5 (60%)	N/A	5 (60%)	AL, QL, MT	BC
BSc majoring in Geography and Statistics*	BC433346	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	BC
*For BSc majoring in Geography and Statistics, either Life Sciences <b>OR</b> Physical Science on Level 5 (60%) will be accepted, <b>WITH</b> Mathematics on Level 5 (60%).								

**THE FOLLOWING PROGRAMMES IN GEOGRAPHY ARE PRESENTED ON THE QWAQWA CAMPUS:**

**Enquiries:** Dr Tom Okello: +27 58 718 5478 | okellotw@ufs.ac.za

Programme Description		Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	LS	PS	NBT	Campus
BSc majoring in Geography and Environmental Geography	QC433359	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	QC
BSc majoring in Geography and Life Sciences	QC433365	32	4 (50%)	5 (60%)	5 (60%)	5 (60%)	AL, QL, MT	QC
BSc majoring in Geography and Tourism	QC433392	32	4 (50%)	5 (60%)	5 (60%)	N/A	AL, QL, MT	QC

**GEOGRAPHIC INFORMATION SYSTEMS / GEO-INFORMATICS:** Geo-informatics is the science and technology that develops and uses information science infrastructure to address the problems of geography, geosciences, and related branches of engineering. Students can analyse data spatially with the aid of geographical information systems and provide links between environmental problems and their spatiality. These people typically become GIS specialists or spatial planners.

**Careers/fields of study:** GIS specialist or geo-informatics practitioner.

---

**GEOGRAPHY AND AGROMETEOROLOGY / SOIL SCIENCES:** Students with a degree in Geography and Agrometeorology / Soil Sciences will understand the interaction between humans and the environment, especially as it impacts on climate, geomorphology, soil, and agriculture. These people typically become geomorphologists, climate specialists or agricultural extension officers providing spatial information and advice in these fields.

**Careers/fields of study:** Environmental assessment practitioner, geomorphologist, climate specialist, agricultural extension officer.

---

**GEOGRAPHY AND ENVIRONMENTAL SCIENCES:** Students with a degree in Geography and Environmental Sciences will not only understand the interaction between humans and the environment but can also offer solutions to environmental problems that humans have to deal with in the physical, as well as the cultural milieu. These people typically become environmental assessment practitioners or environmental consultants.

**Careers/fields of study:** Environmental assessment practitioner, environmental consultant, environmental manager, environmental officer, spatial planner.

---

**GEOGRAPHY AND STATISTICS:** Students with a degree in Geography and Statistics understand the complex issue of visualising and manipulating huge data sources. Students can analyse data spatially with the aid of geographical information systems and provide links between environmental problems and their spatiality. These people typically become GIS specialists or spatial planners.

**Careers/fields of study:** GIS specialist, GIS planner, geographic data analyst, spatial planner.

---

**GEOGRAPHY AND ENVIRONMENTAL GEOGRAPHY (QWAQWA CAMPUS):** Students with a degree in Geography and Environmental Sciences will not only understand the interaction between humans and the environment but can also offer solutions to environmental problems that humans have to deal with in the physical, as well as the cultural milieu. These people typically become environmental assessment practitioners or environmental consultants.

**Careers/fields of study:** Environmental assessment practitioner, environmental consultant, environmental manager, environmental officer, spatial planner.

---

**GEOGRAPHY AND LIFE SCIENCES (QWAQWA CAMPUS):** Students with a degree in Geography and Life Sciences will understand the functional interactions and balance between the abiotic and biotic environment. In an economy where limited resource management and conservation go hand in hand, the knowledge and understanding of these factors are very important for the sustainability of our natural resources.

**Careers/fields of study:** Researchers in the fields of GIS, ecology (general and restoration), climate change, and conservation management, as well as any associated careers within these research fields.

---

**GEOGRAPHY AND TOURISM (QWAQWA CAMPUS):** Students with a degree in Geography and Tourism will have an understanding of tourism studies in the context of theory, as well as a practical understanding of the nature of tourism and its importance in terms of development and sustainability.

Tourism issues are often an interaction of multidisciplinary concepts, and therefore require wide-ranging analytical thinking skills. Students with a degree in Geography and Tourism will have critical thinking skills required for solving the ongoing creation of socio-economic and environmental tourism-related challenges.

**Careers/fields of study:** Tourism management and practice, transdisciplinary studies, tourism development practitioners, tourism development consultants.

## LEARNING PROGRAMMES IN MATHEMATICAL SCIENCES

**Duration of study:** Three years

### **Enquiries: Programme Directors:**

Mathematics and Applied Mathematics:

Dr Christiaan Venter: +27 51 401 2320 | venterc@ufs.ac.za | www.ufs.ac.za /mam

Mathematical Statistics, Actuarial Sciences, Applied Statistics:

Dr Michael von Maltitz: +27 51 401 2609 | vmaltitzmj@ufs.ac.za | www.ufs.ac.za /msas

### **Learning programmes in MATHEMATICAL STATISTICS offer THREE main options with a combination of disciplines:**

- Mathematical Statistics and Agrometeorology (Climate Sciences)
- Mathematical Statistics and Economics (Econometrics)
- Mathematical Statistics and Psychology (Psychometrics)

#### **Careers/fields of study:**

Statistical analysis for government institutions, research councils, financial institutions, psychological research centres and industries, or a career as lecturer, investment analyst, investment manager, risk manager, financial reporter, financial planner.

This learning programme focuses on stochastic models with various applications for Mathematical Statistics. It is evident from the numerous options in the third year that there is a vast field for statistical applications in practice. The programme also enables students to proceed with postgraduate studies in Mathematical Statistics and Risk Analysis.

### **Learning programmes in STATISTICS offer TWO main options with a combination of disciplines:**

- Applied Statistics and Economics
- Applied Statistics and Psychology

#### **Careers/fields of study:**

Economist, econometrician, statistician, research psychologist, financial economist, or financial adviser.

The learning programme focuses on the application of statistical methods in practice and enables students to proceed with postgraduate studies in Statistics.

### **Learning programmes in MATHEMATICS offer FOUR main options with a combination of disciplines:**

- Mathematics and Applied Mathematics
- Mathematics and Chemistry
- Mathematics and Mathematical Statistics
- Mathematics and Physics

**Note:** It is very important that you study the Faculty Rulebook at <https://www.ufs.ac.za/natagri/faculty-of-natural-and-agricultural-sciences-home/academic-information/yearbooks>. as the minimum requirements of any programme can be amended without notifying you.

#### **Careers/fields of study:**

Scientist, mathematical analyst, researcher, lecturer, or teacher. Mathematical analysis of financial problems for financial institutions such as banks, insurance, and investment institutions.

These learning programmes are recommended for students who wish to develop a sound mathematical base for a career as a scientist, mathematical analyst, financial mathematician, lecturer, or teacher. Students can broaden their scientific background by combining their mathematical subjects with Physics or Chemistry. For a career in Applied Mathematics, the student must first develop a solid mathematical foundation.

## Learning programme in ACTUARIAL SCIENCES:

This learning programme is **subject to selection**. It is specifically designed for students who eventually plan to qualify as actuaries, i.e. as fellows of the actuarial professional body. The UFS follows the curriculum of the Actuarial Society of South Africa (ASSA). Certain South African universities, of which the UFS is one, has an exemption agreement with ASSA to recommend students who perform at a certain standard to obtain exemptions from their professional examinations. The UFS has the highest level of ASSA accreditation, which is level 3. Prospective students can be recommended for exemptions in all A100 and A200 series subjects, as well as A311, after completing the bachelors and honours degrees. For more information on this programme, visit [www.ufs.ac.za/actuarial](http://www.ufs.ac.za/actuarial)

### Careers/fields of study:

Actuary, actuarial assistant, risk analyst, financial reporter, manager, investment manager, statistician, teacher.

**Duration of study:** Three years

### THE FOLLOWING PROGRAMMES ARE PRESENTED ON THE BLOEMFONTEIN CAMPUS:

Programme Description		Minimum Admission Requirements					
Programme	APC	AP	LOI	MATHS	PS	NBT	CAMPUS
BSc majoring in Actuarial Science	BC431000	34	4 (50%)	6 (70%)	N/A	AL, QL, MT	BC
Admission to BSc Actuarial Science is <b>subject to selection</b> . The selection process is based on academic performance. If you are unsuccessful in your application for Actuarial Science, you may be offered a place in BSc majoring in Econometrics. A space will be made available to you in the second year of Actuarial Science if you have an excellent performance in your Econometrics first year. Closing date for applications is 30 September 2021.							
BSc majoring in Climate Sciences	BC433712	32	4 (50%)	6 (70%)	4 (50%)	AL, QL, MT	BC
BSc majoring in Econometrics	BC433758	32	4 (50%)	6 (70%)	N/A	AL, QL, MT	BC
BSc majoring in Mathematical Statistics and Psychometrics	BC433786	32	4 (50%)	6 (70%)	N/A	AL, QL, MT	BC
BSc majoring in Statistics and Economics	BC434658	32	4 (50%)	5 (60%)	N/A	AL, QL, MT	BC
BSc majoring in Statistics and Psychology	BC434686	32	4 (50%)	5 (60%)	N/A	AL, QL, MT	BC
BSc majoring in Mathematics and Applied Mathematics	BC433816	32	4 (50%)	6 (70%)	4 (50%)	AL, QL, MT	BC
BSc majoring in Mathematics and Chemistry	BC433821	32	4 (50%)	6 (70%)	4 (50%)	AL, QL, MT	BC
BSc majoring in Mathematics and Mathematical Statistics	BC433837	32	4 (50%)	6 (70%)	4 (50%)	AL, QL, MT	BC
BSc majoring in Mathematics and Physics	BC433840	32	4 (50%)	6 (70%)	4 (50%)	AL, QL, MT	BC

### THE FOLLOWING PROGRAMMES ARE PRESENTED ON THE QWAQWA CAMPUS:

Programme Description		Minimum Admission Requirements					
Programme	APC	AP	LOI	MATHS	PS	NBT	Campus
Bachelor of Science majoring in Mathematics and Chemistry	QC433821	32	4 (50%)	6 (70%)	5 (60%)	AL, QL, MT	QC
Bachelor of Science majoring in Mathematics and Physics	QC433840	32	4 (50%)	6 (70%)	5 (60%)	AL, QL, MT	QC



Programme Description	Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	PS	NBT	Campus
Bachelor of Science majoring in Mathematics and Computer Science	QC433822	32	4 (50%)	6 (70%)	N/A	AL, QL, MT	QC

## LEARNING PROGRAMMES IN COMPUTER SCIENCE AND INFORMATICS:

Duration of programme: Three years

### Enquiries:

Bloemfontein: Programme Director: Mr Jaco Marais: +27 51 401 2929/2754 | maraisj@ufs.ac.za  
www.ufs.ac.za/csi

Qwaqwa: Programme Director: Mr Teboho Lesesa: +27 58 718 5235/5121 | lesesat@ufs.ac.za  
www.ufs.ac.za/csi

THE FOLLOWING PROGRAMMES ARE PRESENTED ON THE BLOEMFONTEIN CAMPUS:

## BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

### [BSc (Information Technology)]

#### BSc (IT) majoring in Chemistry / Physics / Mathematics / Business and Management

This degree allows you to combine Computer Science and Informatics with Chemistry / Physics / Mathematics or with Business and Management subjects such as Business Management, Human Resource Management, Training Management and Economics.

**Career possibilities:** Database administrator / database developer, programmer / software developer / software engineer, systems administrator / network administrator, web designer / web developer.

#### BSc (IT) majoring in Data Science

Data Science combines the disciplines of Computer Science, Applied Mathematics, and Mathematical Statistics to implement scientific computerised methods and processes, machine-learning algorithms, and data models to extract knowledge and insight from large structured and unstructured datasets that can be used to explain past events or forecast future events.

**Career Possibilities:** Business intelligence developer, data scientist / data analyst / data engineer, machine learning scientist / machine learning engineer / Natural language processing engineer

Programme Description	Minimum Admission Requirements						
Programme	APC	AP	LOI	MATHS	PS	NBT	Campus
BSc (Information Technology) majoring in Computer Science and Business Management*	BC432255	32	4 (50%)	4 (50%)	4 (50%)	AL, QL, MT	BC
* If you enrol for Mathematics as part of the BSc (IT) majoring in Computer Science and Business Management programme, Mathematics on Level 5 (60%) is required, otherwise Mathematics on Level 4 (50%) is required for admission.							
BSc (Information Technology) majoring in Computer Science and Chemistry	BC432221	32	4 (50%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc (Information Technology) majoring in Computer Science and Mathematics	BC432238	32	4 (50%)	6 (70%)	5 (60%)	AL, QL, MT	BC

Programme Description		Minimum Admission Requirements					
Programme	APC	AP	LOI	MATHS	PS	NBT	Campus
BSc (Information Technology) majoring in Computer Science and Physics	BC432240	32	4 (50%)	5 (60%)	5 (60%)	AL, QL, MT	BC
BSc (Information Technology) majoring in Data Science	BC432295	32	4 (50%)	6 (70%)	5 (60%)	AL, QL, MT	BC

## Bachelor of Computer Information Systems [BComplnfoSys]

This exciting new degree opens doors for IT fanatics who also want to become managers or even start their own IT company. You will develop these skills through modules in Business Management, Entrepreneurship, and Marketing. You will also acquire the necessary skills to apply Information Technology solutions in the corporate world, with modules in Information Systems, Systems Analysis and Software Design, Systems Infrastructure and Integration, as well as Information Systems in Organisations.

**Career Possibilities:** Systems analyst, IT manager, business analyst, IT entrepreneur.

Programme Description		Minimum Admission Requirements					
Programme	APC	AP	LOI	MATHS	PS	NBT	Campus
Bachelor of Computer Information Systems (BComplnfoSys)	BC430156	30	4 (50%)	4 (50%)	N/A	AL, QL, MT	BC

THE FOLLOWING PROGRAMMES ARE PRESENTED ON THE QWAQWA CAMPUS:

## BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

### [BSc (Information Technology)]

This degree allows you to combine Computer Science and Informatics with Chemistry / Physics / Mathematics or with Management subjects such as Business Management, Human Resource Management, Training Management and Economics.

**Career Possibilities:** Database administrator / database developer, programmer / software developer, software engineer, systems administrator / network administrator, web designer / web developer.

Programme	APC	AP	LOI	MATHS	PS	NBT	Campus
BSc (Information Technology) majoring in Computer Science and Chemistry	QC432221	32	4 (50%)	5 (60%)	5 (60%)	AL, QL, MT	QC
BSc (Information Technology) majoring in Computer Science and Physics	QC432240	32	4 (50%)	5 (60%)	5 (60%)	AL, QL, MT	QC
BSc (Information Technology) majoring in Computer Science and Management	QC432202	32	4 (50%)	4 (50%)	N/A	AL, QL, MT	QC

## BUILDING SCIENCES

Students need to pass modules in the first semester of study according to the faculty rules and regulations in order to continue with studies in the second semester.

**Research focus areas in the following departments in Building Sciences are:**

**ARCHITECTURE:** Place-making / UNESCO (United Nations Educational, Scientific and Cultural Organisation)-accredited earth unit / architecture with design.

**QUANTITY SURVEYING AND CONSTRUCTION MANAGEMENT:** Sustainable human settlements / green building / management of risk associated with construction / construction ethics / cost and time overruns.

THE FOLLOWING PROGRAMMES ARE PRESENTED ONLY ON THE BLOEMFONTEIN CAMPUS:

## LEARNING PROGRAMME IN ARCHITECTURE

### Bachelor of Architecture (BArch):

**Enquiries: Programme Director:** Kobus du Preez: +27 51 401 2332 | dpreezj@ufs.ac.za  
[www.ufs.ac.za/architecture](http://www.ufs.ac.za/architecture)

**Duration of study:** Three years

The Department of Architecture is underpinned by a critical inquiry into meaningful place-making. The department focuses on the caring design of the built environment in the following ways:

**RESEARCH** – Dedicated undergraduate bachelor's and postgraduate honours, master's, and doctoral programmes and focused research by staff members in architectural history, theory, ethics, and design.

**TEACHING** – Formal lectures, inter-personal studio facilitation, vertical studio sessions, construction site visits, annual design excursions, and visits to architectural practices.

**COMMUNITY SERVICE** – The UNESCO-accredited Earth Unit and community service learning

**PRACTICE** – Unconditional validation as a South African architectural learning site, locally by the South African Council for the Architectural Profession (SACAP) and internationally by the Commonwealth Association of Architects (CAA). Associated with the South African Institute of Architects (SAIA).

Through the integration of design, construction, theory, and history, we aim to sensitively, critically, and sustainably learn to provide meaningful places in the South African and international context. After completion of their studies, students will be equipped to register through SACAP as architectural draughtspersons, architectural technologists, senior architectural technologists, or professional architects.

Applications for admission to the BArch programme, on the prescribed application form, must reach the Registrar, Academic Student Services, University of the Free State, Bloemfontein, before or on 31 July of the year before intended admission. A selection procedure takes place before admission (consult [www.ufs.ac.za/arch-selection](http://www.ufs.ac.za/arch-selection)). Students will be notified of the outcome of the selection process no later than the end of November. Apply online at <https://apply.ufs.ac.za>

The Bachelor of Architecture involves full-time education that extends over six semesters and consists of lectures, projects, and continuous evaluation.

The purpose of this programme is to educate candidates in order to register with the South African Council for the Architectural Profession in the appropriate category for which they qualify, in terms of the provisions of the Architectural Profession Act 44 of 2000. The degree BArch provides access to the BArchHons degree.

Students are strongly advised to work in an architect's office or other similarly approved institution during holidays, in order to gain practical experience.

The evaluations and examinations for the degree BArch are recognised by the minister concerned, in terms of the provisions of the Architectural Profession Act (Act 44 of 2000). Training experience after completion of the BArch degree will be controlled by the conditions of the South African Council for the Architectural Profession. The registrar of this council will provide information in this regard.

### Selection procedure:

All the information regarding the selection process and creative exercises is available on the departmental website: [www.ufs.ac.za/arch-selection](http://www.ufs.ac.za/arch-selection).

You must pass a selection process. Visit [www.ufs.ac.za/arch-selection](http://www.ufs.ac.za/arch-selection), print the selection form, and submit the **ORIGINAL** hard copy to the Department of Architecture on the Bloemfontein Campus before or on 31 July 2021.

We will notify you of the selection outcome no later than 30 November 2021.

Programme Description		Minimum Admission Requirements					
Programme	APC	AP	LOI	MATHS	Selection	Compulsory NBT	Campus
Bachelor of Architecture BArch	BC430114	30	4 (50%)	4 (50%)	Yes	AL, QL, MT	BC

**Note:** Closing date for applications as well as the submission of your selection form (which contains the creative exercises) is 31 July 2021.

**Careers/fields of study:** Draughtsman, architectural technologist, architectural assistant, preparation for architect profession, urban and regional planner, landscape architect, interior designer.

## LEARNING PROGRAMME IN QUANTITY SURVEYING AND CONSTRUCTION MANAGEMENT

The Department of Quantity Surveying and Construction Management aims to develop, by means of dynamic scientific education, independent and critically thinking graduates who will become leaders in their field. Over the past few years, the department has made significant contributions to the various professions and to the construction industry as a whole. The department maintains statutory accreditation by the South African Council for the Quantity Surveying Profession (SACQSP), the South African Council for the Project and Construction Management Professions (SACPCMP), and the South African Council for the Property Valuers Profession (SACPVP). Internationally, the department is accredited by the Royal Institution of Chartered Surveyors (RICS) and the Chartered Institute of Building (CIOB), both in the UK.

**Duration of study:** Three years

**Enquiries:** Construction Economics and Management: Ms Tascha Bremer: +27 51 401 2996  
bremer@ufs.ac.za | www.ufs.ac.za /qscm

Applications for admission to the degree programme should be sent on the prescribed form to:

The Director, Student Administration, before or on 31 July of the year prior to the intended admission. You will be informed of the outcome. Apply online at <https://apply.ufs.ac.za>

Learning programmes in the BUILDING SCIENCES offer the following options:

### BSc Construction Economics and Management

**Careers/fields of study:**

Construction business management, production of real estate, operations management, and building management. Professional practising of quantity surveying, construction surveying, cost project management, property development and management.

Programme Description		Minimum Admission Requirements					
Programme	APC	AP	LOI	MATHS	Selection	Compulsory NBT	Campus
BSc (Construction Economics and Management) (Full time)	BC432443	32	4 (50%)	5 (60%)	Yes	AL, QL, MT	BC
BSc (Construction Management) (Compact Learning)	BC432401	32	4 (50%)	5 (60%)	Yes	N/A	BC
BSc (Quantity Surveying) (Compact Learning)	BC434301	32	4 (50%)	5 (60%)	Yes	N/A	BC

**Notes:**

Economics, Business Studies, Accounting or Physical Science on Level 4 (50%) is recommended. Closing date for applications in BSc majoring in Construction Economics and Management is 31 July 2021.

All information in this publication is subject to change. Information in this publication has been compiled with the utmost care. However, the Council and Senate accept no responsibility for errors. For the modules and module codes of all programmes listed above, study the Faculty Rulebook at <https://www.ufs.ac.za/natagri/faculty-of-natural-and-agricultural-sciences-home/academic-information/yearbooks>. The Faculty Rulebook is the final and correct source.

This publication was compiled and produced by the Department of Student Recruitment Services at the University of the Free State.

Wekkie Saayman Building

University of the Free State, Bloemfontein 9301



Need an answer...  
**fast?**

Chat to the  
Kovsie2Bot at  
**087 240 6370**



# ARE YOU A **TOP ACHIEVER**

in academics, sport, culture and leadership?



*Enter the prestigious*

## **MATRICULANT OF THE YEAR COMPETITION**

***Closing date for entries is 31 July 2021***

Contact Linda Greyling at +27 51 401 3384 or [greylinl@ufs.ac.za](mailto:greylinl@ufs.ac.za)



IT IS YOUR TIME **TO SHINE** Great prizes to be won!

The University of the Free State presents the **Star of Stars** competition. If you are a bright spark, passionate and aspire to inspire, then Star of Stars is meant for you!

All Grade 12 learners in the Motheo, Lejweleputswa, Xhariep, Thabo Mofutsanyane, and Fezile Dabi districts who are achievers in academics and leadership, and/or involved in community projects, are invited to enter this once in a lifetime competition. Let your brightness shine through by entering today.



Applications will be open from 1 April 2021 to 1 August 2021. Please get your application form from your school, one of the UFS marketers or phone +27 51 401 3000 or email [info@ufs.ac.za](mailto:info@ufs.ac.za) | [ufsmarketing@ufs.ac.za](mailto:ufsmarketing@ufs.ac.za)

**The Star of Stars winner will be announced during a prestigious gala evening in February 2022.**

**Kick-start your studies, because you were born to shine! *U naleidi.***



For more information contact: +27 51 401 3000 | [info@ufs.ac.za](mailto:info@ufs.ac.za)  
[ufsmarketing@ufs.ac.za](mailto:ufsmarketing@ufs.ac.za)

#### TERMS AND CONDITIONS

1. Learners eligible to enter should be in Grade 12 in 2021.
2. The competition is open to learners in all five districts of the Free State: Motheo, Lejweleputswa, Xhariep, Thabo Mofutsanyane, and Fezile Dabi:
  - a. Rural Schools
  - b. Township Schools
  - c. Dinaledi Schools
3. Learners must have applied to the University of the Free State (UFS) to study in 2022.
4. All finalists must be available to attend the Star of Stars weekends during the 2021 September school break and at the end of January 2022.

**Only entries from Quintile 1 to 3 schools from the Free State will be accepted.**



# UNIVERSITY OF THE FREE STATE



VIRTUAL OPEN DAY LAUNCH:  
**30 APRIL 2021**



ECONOMIC AND  
MANAGEMENT SCIENCES



EDUCATION



HEALTH SCIENCES



THE HUMANITIES



LAW



NATURAL AND  
AGRICULTURAL SCIENCES



THEOLOGY AND  
RELIGION

APPLICATIONS FOR UNDERGRADUATE STUDIES  
IN 2022 OPEN 1 APRIL 2021

T: +27 51 401 3000 | T: Kovsie2Bot: +27 87 240 6370 | E: [ufsmarketing@ufs.ac.za](mailto:ufsmarketing@ufs.ac.za) | [www.ufs.ac.za](http://www.ufs.ac.za)

 UFSUV |  UFSweb |  UFSweb |  ufsuv

*Inspiring excellence. Transforming lives.*

**Kovsie  
2B**

UNIVERSITY OF THE  
FREE STATE  
UNIVERSITEIT VAN DIE  
VRYSTAAT  
YUNIVESITHI YA  
FREISTATA



**UFS**  
STUDENT RECRUITMENT  
SERVICES