

Faculty of Natural and Agricultural Sciences

Fakulteit Natuur- en Landbouwetenskappe Lefapha la Disaense tša Tlhago le Temo

Bachelor of Science in Geoinformatics



Make today matter



The Bachelor of Science in Geoinformatics programme entails the collection, storage, analysis, visualisation and management of geospatial information by using an assortment of geospatial analytical methods and tools to help with decision making and providing solutions to geographic problems. Our graduates have a

passion for geography, an interest in collecting, processing, displaying and analysing geographic information, and deriving, geospatial data products, and an interest in using computing technology and quantitative techniques to address geographical problems.



What makes this programme unique?

The programme is accredited by the South African Geomatics Council for registration as candidate Geomatics Technologists in GISc (GTg, GISc).



Career opportunities

Web programmer, geospatial data officer, geospatial software developer, mobile app developer, geovisualisation specialist, GIS project manager, GISc consulting, map designer, spatial data analyst, earth observation data analyst and systems analyst.



Which companies employ our graduates?

Graduates with a Bachelor of Science in Geoinformatics readily find work at organisations such as:

- The Environmental Systems Research Institute (ESRI) South Africa;
- Intergraph Systems Southern Africa;
- The Council for Scientific and Industrial Research (CSIR);
- The Agricultural Research Council (ARC);
- AfriGIS; GeoTerra Image; GISCOE; Aurecon;
- The South African National Space Agency (SANSA);
- South Africa's national mapping organisation (National Geospatial Information (NGI);
- Any municipality in the country;
- Many government departments (eg Environmental Affairs, Forestry and Fisheries (DEFF); Science and Innovation (DSI); Statistics South Africa; and the Department of Agriculture, Land Reform and Rural Development (DALRRD); and Water and Sanitation (DWS).



'My decision to pursue Geoinformatics at the University of Pretoria was sparked by the realisation of GIS's limitless potential to solve real-world problems. I was particularly struck by its widespread applications during the COVID-19 pandemic in my first year of studies, when GIS became instrumental

in tracking the virus's spread, identifying high-risk areas, and optimising resource allocation. The ability to integrate spatial data with other disciplines – such as healthcare, urban planning, and environmental management – truly fascinated me. UP's programme not only deepened my understanding of GIS's technical aspects but also fostered my passion for its transformative potential across diverse industries. I am confident that my education at UP has equipped me to make a meaningful impact in this exciting and rapidly evolving field.'

Sonet Vermaak – Bachelor of Science in Geoinformatics



'I study Geoinformatics as it is something that I feel is relevant to our current world and can be used in many applications. It has capacities beyond our imaginations, and I have really enjoyed studying something so unique yet also so applicable in every domain. I've enjoyed learning many

different skills and being exposed to various areas and fields such as programming, legislation, business, and, of course, spatial applications. I've really enjoyed what the degree has given me so far and I can't wait to see what the future holds for GIS and where it will take me next. I highly recommend Geoinformatics to anyone interested in understanding and aiding the world around us. If you are keen to study something very dynamic and impactful, then this degree is for you.' **Scout Yatt** – Bachelor of Science in Geoinformatics



I chose this degree as I love the outdoors and the natural environment. I find it really fascinating to learn how mankind and society interact with one another, as well as how they interact with and influence the natural environment around them. Upon discovering this degree and reading

through its yearbook, I knew that this was definitely the one for me. The intelligently designed outline of the course allowed me to choose a major I knew I would enjoy (Geoinformatics). It also allowed me to develop useful interdisciplinary skills that I know will be extremely useful in the working world and when applying for jobs.'

Kyle Theron – Bachelor of Science in Geoinformatics

Minimum admission requirements

	Minimum requirements for NSC/IEB for 2026							
	Achievement level							
Programme	English Home Language or English First Additional Language	Mathematics	Physical Sciences	APS				
Bachelor of Science in Geoinformatics [3 years]	5	5	5	34				



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Minimum requirements for applicants with a school leaving certificate not issued by Umalusi (South Africa)





Refer to the International undergraduate prospectus at www.up.ac.za/programmes > Undergraduate > Admission Information or <u>click here</u> for more information.

- The closing date for applications for programmes in this faculty is 30 June.
- Meeting the minimum admission requirements does not guarantee admission into a programme.

	Minimum requirements for 2026									
	Achievement level									
		GC	SE #		AS Level	A Level				
		two column be consider conditional If final A A levels h completed columns wi It can also for final adr	ations in the is below will red only for l admission. S and/or lave been , these two ll not apply. not be used mission and/ tration.							
FACULTY OF NATURAL AND AGRICULTURAL SCIENCES	Compulsory subjects	CIE	UK	HIGCSE NSSC HL	GCE CIE NSSC	GCE CIE CGCE	IB SL	IB HL	KOMBI ABITUR	KCSE
Programmes		IGCSE LGCSE BGCSE CGCSE O Level NSSC OL CGCE UCE NECO WAEC WASSCE ZGCE	England Wales Northern Ireland Pearson Edexcel GCSE		AS	UACE WAEC ZGCE				
Bachelor of Science in Biochemistry					C	E				
Bachelor of Science in Biotechnology										
Bachelor of Science in Ecology										
Bachelor of Science in Zoology										
Bachelor of Science in Entomology										
Bachelor of Science in Genetics										
Bachelor of Science in Human Genetics										
Bachelor of Science in Human Physiology			4	3			4	3		
Bachelor of Science in Human Physiology, Genetics and Psychology	English	с							60-69%	В
Bachelor of Science in Medical Sciences	English Mathematics	c c							60-69% 60-69%	В
Bachelor of Science in Microbiology	Physics	С	4	3	С	E	4	3	60-69%	В
Bachelor of Science in Plant Science	Chemistry	С	4	3	С	E	4	3	60-69%	В
Bachelor of Science in Chemistry										
Bachelor of Science in Physics										
Bachelor of Science in Geography [Option: Geography and Environmental Science]										
Bachelor of Science in Geoinformatics										
Bachelor of Science in Geology										
Bachelor of Science in Meteorology										
Bachelor of Science in Environmental and Engineering Geology										

Only English with at least a C symbol on this level can be used for final admission. NOTE: The Faculty of Natural and Agricultural Sciences requires the following achievement levels for IELTS and TOEFL: TOEFL – Writing=22; Speaking=23; Reading=21; Listening=17 IELTS – Writing=6; Speaking=6; Reading=6; Listening=6

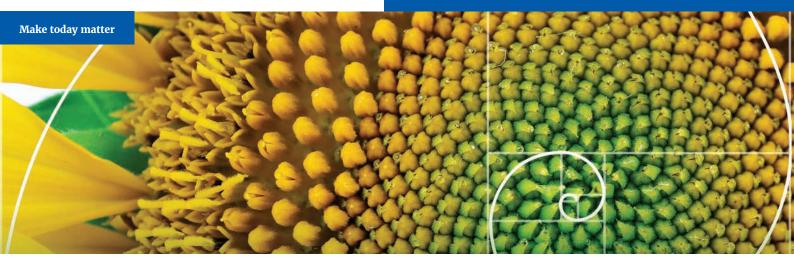


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		GCSE #			AS Level	A Level	IB			
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Programmes		IGCSE LGCSE BGCSE EGCSE O Level NSSC OL CGCE UCE NECO WAEC WASSCE ZGCE	England Wales Northern Ireland Pearson Edexcel GCSE		NSSC AS	CGCE UACE WAEC ZGCE				
Bachelor of Science in Food Science		c c c c	4 4 4 4	3 3 3 3	C C C C	E E E	4 4 4 4	3 3 3 3	60-69% 60-69% 60-69% 60-69%	
Bachelor of Science in Food Management [Option: Culinary Science]										
Bachelor of Science in Food Management	-									
[Option: Nutritional Science] Bachelor of Science in Agriculture in Agricultural Economics in Agribusiness Management	English Mathematics Physics									B B B B
Bachelor of Science in Agriculture in Animal Science	Chemistry									
Bachelor of Science in Agriculture in Plant Pathology										
Bachelor of Science in Agriculture in Applied Plant and Soil Sciences										
Bachelor of Science in Actuarial and Financial Mathematics	English Mathematics	C A	4 7	3 1	C A	E C	4 6	3 5	60-69% 80-100%	B A
Bachelor of Science in Mathematics										
Bachelor of Science in Applied Mathematics	English Mathematics	C B	4 5	3 2	C B	E	4	3	60-69% 70-79%	B B+
Bachelor of Science in Mathematical Statistics					0	0	5	-	101510	5.
Bachelor of Consumer Science specialising in Clothing and Retail Management	English Mathematics	C	4	3	C D	E	4	3	60-69% 50-59%	B C+
Bachelor of Consumer Science specialising in Food Management							_		20-2320	-

Only English with at least a C symbol on this level can be used for final admission. NOTE: The Faculty of Natural and Agricultural Sciences requires the following achievement levels for IELTS and TOEFL: TOEFL – Writing=22; Speaking=23; Reading=21; Listening=17 IELTS – Writing=6; Speaking=6; Reading=6; Listening=6



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	Minimum requirements for 2026									
	Achievement level									
		GC	SE #		AS Level	A Level	IB			
		The qualifications in the two columns below will be considered only for conditional admission. If final AS and/or A levels have been completed, these two columns will not apply. It can also not be used for final admission and/ or registration.								
FACULTY OF NATURAL AND AGRICULTURAL SCIENCES	Compulsory subjects	CIE IGCSE	UK England	HIGCSE NSSC HL	GCE CIE NSSC	GCE CIE CGCE	IB SL	IB HL	KOMBI ABITUR	KCSE
Programmes		O Level BGCSE EGCSE O Level NSSC OL CGCE UCE NECO WAEC WASSCE ZGCE	Wales Northern Ireland Pearson Edexcel GCSE		AS	UACE WAEC ZGCE				
Bachelor of Science in Mathematics [4-year programme]	English Mathematics	D C	3 4	3 3	D C	E	2 4	2 3	58% 65%	B- B
Bachelor of Science in Chemistry [4-year programme] Bachelor of Science in Geoinformatics [4-year programme]	-									
Bachelor of Science in Geology [4-year programme] Bachelor of Science in Meteorology [4-year programme]										
Bachelor of Science in Physics [4-year programme] Bachelor of Science in Ecology [4-year programme]	English Mathematics Physics Chemistry	D D D D	3 3 3 3	3 3 3 3	D D D D	E E E E	2 2 2 2	2 2 2 2	58% 58% 58% 58%	B- B- B- B-
Bachelor of Science in Human Physiology [4-year programme] Bachelor of Science in Agriculture in Applied Plant and Soil Sciences [5-year programme] Bachelor of Science in Agriculture in Plant Pathology [5-year programme]										

Only English with at least a C symbol on this level can be used for final admission.

NOTE: The Faculty of Natural and Agricultural Sciences requires the following achievement levels for IELTS and TOEFL: TOEFL – Writing=22; Speaking=23; Reading=21; Listening=17 IELTS – Writing=6; Speaking=6; Reading=6; Listening=6

