

# BScHons Geography & Environmental Science

(02240415)

Duration of study: 1 year

Department of Geography, Geoinformatics and Meteorology

[www.up.ac.za/ggm](http://www.up.ac.za/ggm)



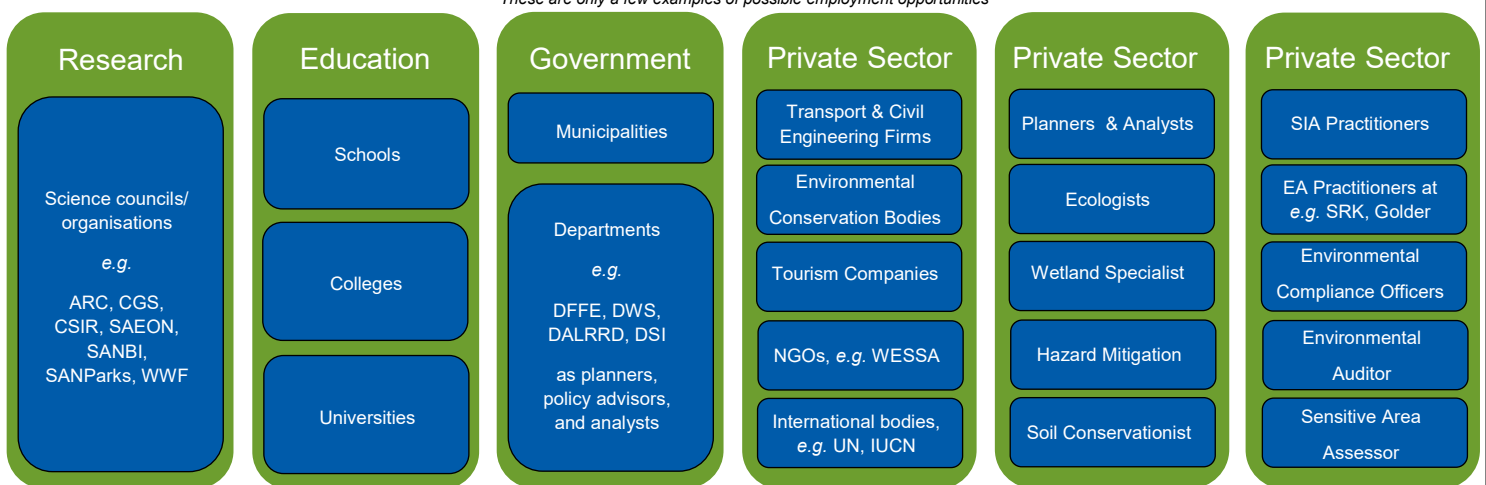
Faculty of Natural and Agricultural Sciences

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

Geography and environmental science encourages students to take a holistic view of the world. It fosters an understanding of the environment as a dynamic interactive entity comprising physical, social and built environments, their human impact and the ways in which these can be made more sustainable for the future.

## Potential Employment Opportunities\*

*\*These are only a few examples of possible employment opportunities*



## Admission Requirements

Admission into BScHons Geography and Environmental Science is a BSc in Geography or Environmental Science or equivalent BSc degree. The undergraduate degree must meet the pre-requisites of the core modules with an average of 60% in the final year of the bachelor's degree. The overall mark achieved for the bachelor's degree must also be above 60%.

## BScHons Geography & Environmental Science: Modules

### Fundamental Modules

Geographical and environmental principles

### Core Modules

Environmental assessments  
Research project  
Applied geomorphology  
Environmental change  
Advanced GIS or Advanced remote sensing

### Elective Modules

Advanced geospatial data  
Advanced GIS or Advanced remote sensing  
Advanced remote sensing  
Basis in environmental health  
Geospatial data and services

Introduction to environmental and occupational health  
Natural woodland and forests: Ecology and management  
Selected theme  
Special topics  
Statistics for biological sciences

Postgraduate enquiries: Dr Natalie Haussmann, [natalie.haussmann@up.ac.za](mailto:natalie.haussmann@up.ac.za)

# BSocSciHons Geographical Sciences

(Option Geography and Environmental Science)  
(02240415)

Duration of study: 1 year

Department of Geography, Geoinformatics and Meteorology

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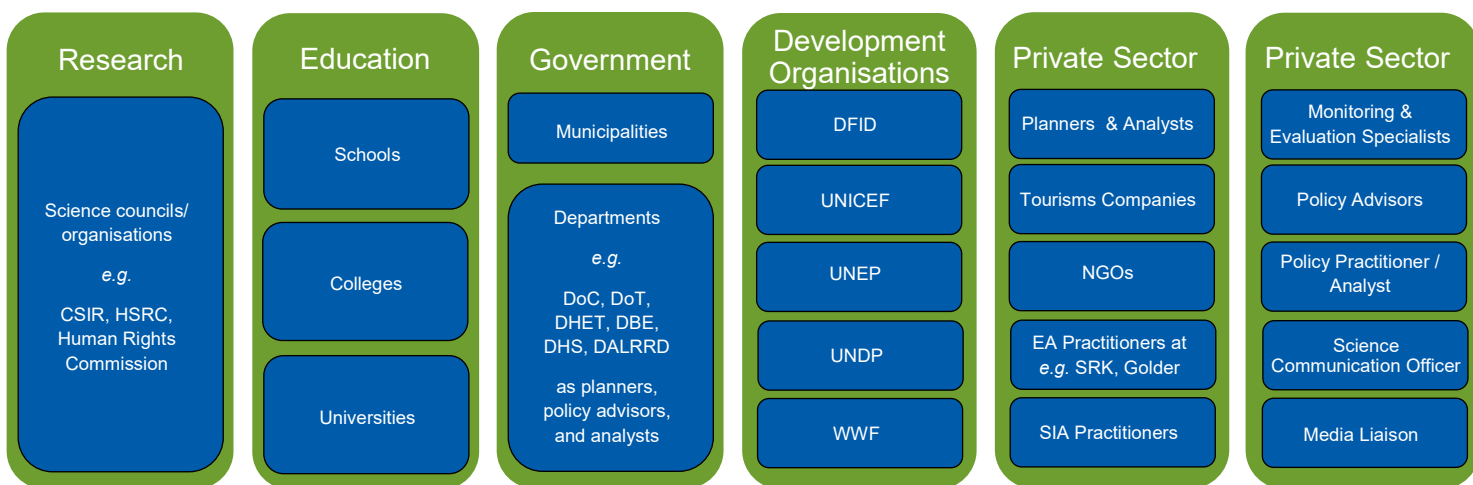
Faculty of Natural and Agricultural Sciences

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## Potential Employment Opportunities\*

\*These are only a few examples of possible employment opportunities



## Admission Requirements

Admission into BSocSciHons Geography and Environmental Science is a BA or BEd degree that meets the pre-requisites of the core modules with an average of 60% in the final year of the bachelor's degree. The overall mark achieved for the bachelor's degree must also be above 60%.

## BScHons Geography & Environmental Science: Modules

### Fundamental Modules

Geographical and environmental principles

### Core Modules

Environmental assessments  
Environmental policy and communication  
Research project  
Urban geography

### Elective Modules

Students should choose 30 elective credits from the following groups: 1) Applied geography, 2) GIS and remote sensing, 3) Communication and information, 4) Media, 5) Environment and health, or 6) Development and society.

Applied geomorphology  
Advanced GIS  
Advanced remote sensing  
Basis in environmental health  
Communication for sustainable rural development  
Cross-media visual and digital scholarship  
Globalisation and development  
Human-computer interaction  
Identity, culture and society

Information Ethics  
Information and knowledge management (I)  
Information and knowledge management (II)  
Introduction to environmental and occupational health  
Information Society  
Multimedia technology  
Multimedia trends  
Responsible tourism management  
Selected theme  
Social theory  
Specials topics

Postgraduate enquiries: Dr JJ Gregory, [jj.gregory@up.ac.za](mailto:jj.gregory@up.ac.za)

# BScHons Geoinformatics

(02240414)

Duration of study: 1 year

Department of Geography, Geoinformatics  
and Meteorology

[www.up.ac.za/ggm](http://www.up.ac.za/ggm)



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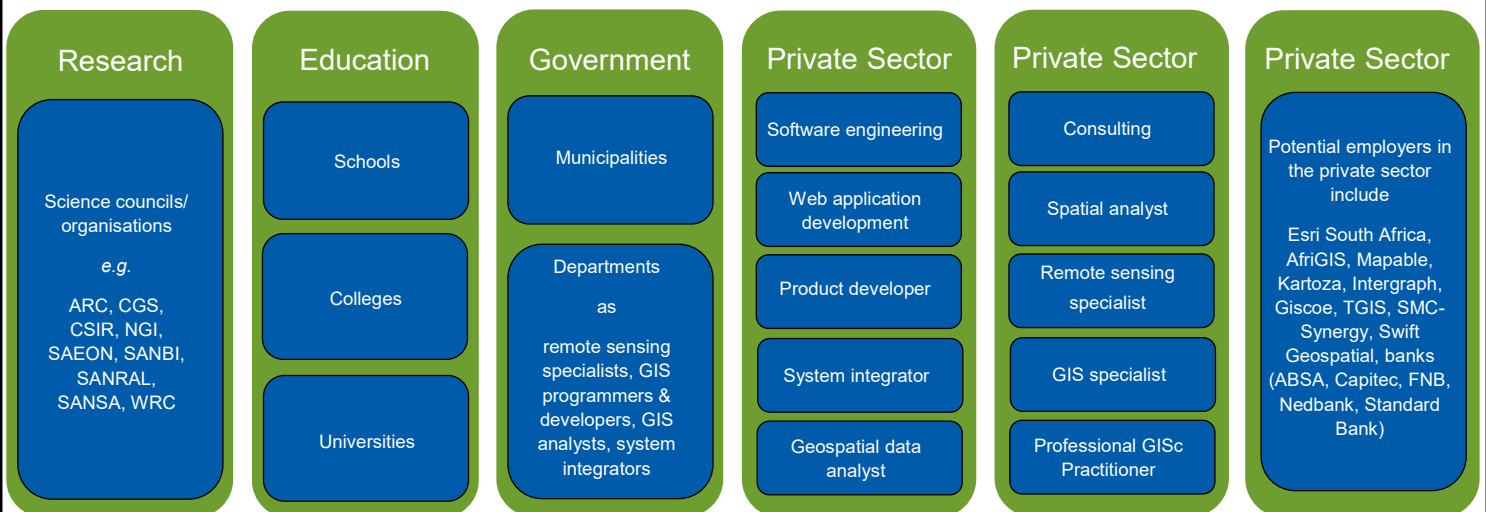
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**Geoinformatics is concerned with the nature of geographic information and the use of geospatial technologies to collect, store, maintain, analyse, present and disseminate geographic information.**

## Potential Employment Opportunities\*

*\*These are only a few examples of possible employment opportunities*



**This program is accredited by the SAGC (South African Geomatics Council) and successful graduates can register as *Candidate GISc Professionals* upon the completion of the degree.**

## Admission Requirements

BSc (Geoinformatics) or BSc degree that meets the pre-requisites of the core modules with an average of 60% in the final year of the bachelor's degree. The overall mark achieved for the bachelor's degree must also be above 60%. Prospective students may be required to do additional modules to enable them to reach the desired level of study.

## BSc Hons Geoinformatics: Modules

### Fundamental Modules

Research methods

### Core Modules

Advanced GIS  
Advanced geospatial data  
Advanced remote sensing  
Geospatial data and services  
Research project  
Spatial statistics and geodesy

### Elective Module

Applied data science  
Environmental assessments  
Environmental policy and  
communication  
Geographical and environmental  
principles  
Special topics

*Appropriate honours modules may be taken from the Faculty or from the School of Information Technology, as approved by the honours coordinator or Head of Department.*

Postgraduate enquiries: Dr Victoria Rautenbach, [victoria.rautenbach@up.ac.za](mailto:victoria.rautenbach@up.ac.za)

# BScHons Meteorology

(02240074)

Duration of study: 1 year

Department of Geography, Geoinformatics  
and Meteorology

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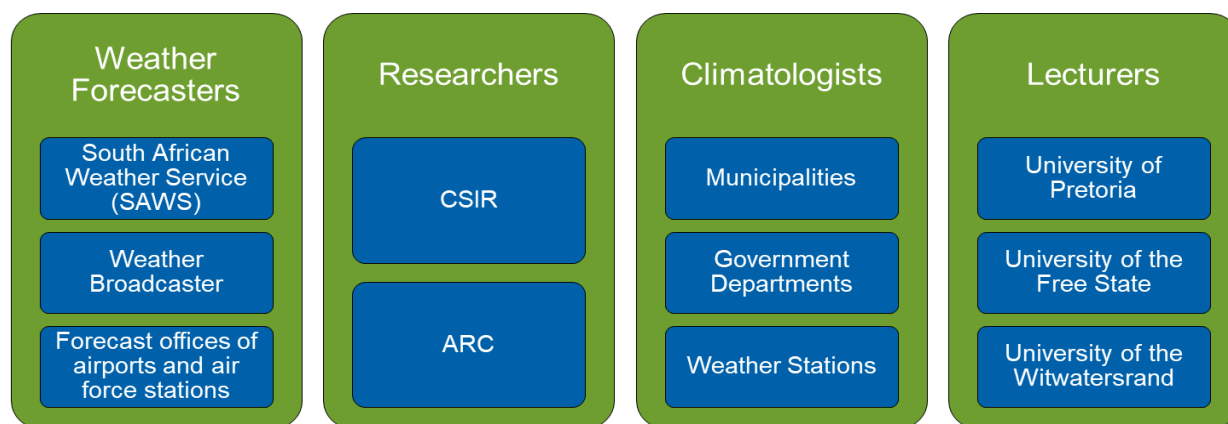
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**Meteorology is the study of the physics, chemistry, and dynamics of the earth's atmosphere, in order to develop a complete understanding and accurate prediction of atmospheric phenomena.**

## Potential Employment Opportunities\*

*\*These are only a few examples of possible employment opportunities*



Students who successfully complete the BSc Meteorology and BSc (Hons) Meteorology programs conform to all the requirements for a meteorologist according to the definition of the World Meteorological Organization (WMO) Technical Regulations. The Department also has a strong collaboration with the South African Weather Service (SAWS).

## Admission Requirements

A BSc (Meteorology) degree or an appropriate bachelor's degree with second-year mathematics and first-year physics. The undergraduate degree must meet the prerequisites of the core modules with an average of 60% in the final year of the bachelor's degree. The overall mark achieved for the bachelor's degree must also be above 60%.

GMA 220 Remote Sensing PHY 114 and 124	WKD 352 Atmospheric vorticity and divergence
WKD 155 Atmospheric structure and processes	WKD 361 Quasi-geostrophic analysis
WKD 254 Programming in meteorology	WKD 366 Fundamentals of weather forecasting
WKD 261 Physical meteorology	WTW 256 Differential Equations*
WKD 351 Atmospheric balance laws	WTW 258 Calculus*
	WTW 263 Numerical methods*

*\* or an equivalent qualification as approved by the head of the department*

## BScHons Meteorology: Modules

### Core Modules

Dynamic meteorology  
Numerical modelling: Applications  
Overview of tropical and mid-latitude meteorology  
Radar meteorology  
Research project  
Satellite meteorology

### Elective Modules

Cloud dynamics  
Boundary layer meteorology  
Mesoscale Meteorology  
Seasonal climate modeling  
Selected Themes

*Special events will be arranged from time to time that you will be required to attend.*

Postgraduate enquiries: Prof Liesl Dyson, [liesl.dyson@up.ac.za](mailto:liesl.dyson@up.ac.za)