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# Universiteit van Pretoria Jaarboek 2017

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## BScHons Geoinformatika (02240414)

**Duur van studie** 1 jaar

**Totale krediete** 135

### Programinligting

Hierdie inligting is slegs in Engels beskikbaar.

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#### Renewal of registration

1. Subject to exceptions approved by the Dean, on the recommendation of the head of department, and in the case of distance education where the Dean formulates the stipulations that will apply, a student may not sit for an examination for the honours degree more than twice in the same module.
2. A student for an honours degree must complete his or her study, in the case of full-time students, within two years and, in the case of after-hours students, within three years of first registering for the degree and, in the case of distance education students, within the period stipulated by the Dean. Under special circumstances, the Dean, on the recommendation of the head of department, may give approval for a limited extension of this period.

In calculating marks, General Regulation G.12.2 applies.

Apart from the prescribed coursework, a research project is an integral part of the study.

### Toelatingsvereistes

'n BSc in Geoinformatika of gelykstaande BSc-graad wat voldoen aan die voorvereistes van die honneursmodules. Voornemende studente kan verwag word om bykomende modules te doen om hulle in staat te stel om die verlangde vlak van studie te bereik. Keuring vind plaas voor toelating.

### Addisionele vereistes

Prospective students may be required to do additional modules to enable them to reach the desired level of study. Selection takes place before admission.

### Slaag met lof

The BScHons degree is awarded with distinction to a candidate who obtains a weighted average of at least 75% in all the prescribed modules and a minimum of 65% in any one module.



## Kurrikulum: Finale jaar

Minimum krediete: 135

### Fundamentele modules

#### Navorsingsmetodes 701 (GIS 701)

**Modulekrediete** 10.00

**Kontaktyd** 14 uur gedurende die jaar

**Onderrigtaal** Module word in Engels aangebied

**Akademiese organisasie** Geografie, Geoinf en Meteor

**Aanbiedingstydperk** Kwartaal 1

#### Module-inhoud

\*Hierdie inligting is slegs in Engels beskikbaar.

The module introduces students to planning, research design, scientific reading, writing and presentation as required for geoinformatics research.

#### GIS professionele praktyk 703 (GIS 703)

**Modulekrediete** 15.00

**Kontaktyd** 28 kontakure per semester

**Onderrigtaal** Module word in Engels aangebied

**Akademiese organisasie** Geografie, Geoinf en Meteor

**Aanbiedingstydperk** Semester 1 of Semester 2

#### Module-inhoud

\*Hierdie inligting is slegs in Engels beskikbaar.

Professionalism, including professional ethics, professional practices, partnerships, client relationships, SA Council for Professional and Technical Surveyors (including legislation and rules), and social responsibility. Relevant legislation, including Promotion of Access to Information Act and Spatial Data Infrastructure Act. Role of international associations/societies in Geoinformatics.

### Kernmodules

#### Ruimtelike statistiek en geodesie 704 (GIS 704)

**Modulekrediete** 15.00

**Voorvereistes** GMC 310 en GIS 320 of ekwivalent

**Kontaktyd** 28 kontakure per semester

**Onderrigtaal** Module word in Engels aangebied

**Akademiese organisasie** Geografie, Geoinf en Meteor

**Aanbiedingstydperk** Semester 1 of Semester 2



## Module-inhoud

Ruimtelike kleinste kwadrate regressie, oppervlakinterpolasie deur die gebruik van kleinste kwadrate en koördinaattransformasies. Onderwerpe en Geodesie: Ruimtelik gebaseerde meetstelsels, seevlak metings, bepaling van die geoid, aardas orientasie en aarddinamika.

## Advanced geospatial data 705 (GIS 705)

<b>Modulekrediete</b>	15.00
<b>Voorvereistes</b>	GIS 310 of ekwivalent
<b>Kontaktyd</b>	28 kontakure per semester
<b>Onderrigtaal</b>	Module word in Engels aangebied
<b>Akademiese organisasie</b>	Geografie, Geoinf en Meteor
<b>Aanbiedingstydperk</b>	Semester 1 of Semester 2

## Module-inhoud

\*Hierdie inligting is slegs in Engels beskikbaar.

Advanced topics in geospatial data management, such as data quality assurance, data quality assessment and the supply chain for geospatial data acquisition.

## Navorsingsprojek 702 (GIS 702)

<b>Modulekrediete</b>	35.00
<b>Onderrigtaal</b>	Module word in Engels aangebied
<b>Akademiese organisasie</b>	Geografie, Geoinf en Meteor
<b>Aanbiedingstydperk</b>	Jaar

## Module-inhoud

Hierdie module verskaf aan die student die geleentheid om 'n GIS-toepassing te skep. Projekstadia sluit in: probleem- en hipotesestelling, projekmetodologie, databehoeftebepaling, databasisontwerp, data-analise en kommunikasie van die finale inligtingsprodukte.

## Gevorderde afstandswaarneming 705 (GMA 705)

<b>Modulekrediete</b>	15.00
<b>Voorvereistes</b>	GMA 320 of ekwivalent
<b>Kontaktyd</b>	28 kontakure per semester
<b>Onderrigtaal</b>	Module word in Engels aangebied
<b>Akademiese organisasie</b>	Geografie, Geoinf en Meteor
<b>Aanbiedingstydperk</b>	Semester 1 of Semester 2



## Module-inhoud

\*Hierdie inligting is slegs in Engels beskikbaar.

The aim of the module is to provide knowledge and understanding of image analysis and information extraction methods in remote sensing. The emphasis is on equipping students with knowledge and skills necessary to process imagery to extract diverse biophysical and geospatial information. The course gives insight into the possibilities and limitations of the application of modern remote sensing/image acquisition systems for Earth and atmosphere research purposes at different levels of detail.

## Keusemodules

### Special topics 707 (GIS 707)

**Modulekrediete** 15.00

**Kontaktyd** 28 kontakure per semester

**Onderrigtaal** Module word in Engels aangebied

**Akademiese organisasie** Geografie, Geoinf en Meteor

**Aanbiedingstydperk** Semester 1 of Semester 2

#### Module-inhoud

A special topic in Geoinformatics linked to research specialisation in the department and/or visiting lecturers. For example, research trends and advances in a specific topic or field of specialisation in Geoinformatics. The module is presented in the form of guided advanced readings, seminars and/or discussion sessions.

### Internet GIS 706 (GIS 706)

**Modulekrediete** 15.00

**Voorvereistes** INF 164 of ekwivalent

**Kontaktyd** 28 kontakure per semester

**Onderrigtaal** Module word in Engels aangebied

**Akademiese organisasie** Geografie, Geoinf en Meteor

**Aanbiedingstydperk** Semester 1 of Semester 2

#### Module-inhoud

Hierdie module verskaf 'n oorsig van hoe Geografiese Inligting oor die internet en intranet versprei kan word. Dit sal aantoon hoe GIS-funksionaliteit aan 'n wye reeks netwerkgebaseerde toepassings in besighede, die staat, onderwys, ens. verskaf kan word. Studente sal leer hoe om webgebaseerde kaarte te ontwikkel deur gebruik te maak van sagteware wat tans beskikbaar is ten einde die potensiaal van GIS in die Internet-omgewing te verwezenlik.

### Ruimtelike databasisse 787 (COS 787)

**Modulekrediete** 15.00

**Voorvereistes** Geen voorvereistes.

**Kontaktyd** 2 lesings per week



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**Onderrigtaal** Module word in Engels aangebied

**Akademiese organisasie** Geografie, Geoinf en Meteor

**Aanbiedingstydperk** Semester 1 of Semester 2

### **Module-inhoud**

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This module covers the major themes of spatial databases with application to geographic information systems (GIS), i.e. systems concerning data with an implicit or explicit reference to a location relative to the earth. Topics covered include an introduction to spatial databases and spatial data management systems, representation of geographic data, spatial data modelling, computational geometry, spatial data indexing, query processing and spatial data standards. For Computer Science students the module is an introduction to the ever increasing application field of geographics information systems (GIS), and for Geoinformatics students the module provides insight into the Computer Science foundations of the field.

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Die inligting wat hier verskyn, is onderhewig aan verandering en kan na die publikasie van hierdie inligting gewysig word.. Die [Algemene Regulasies \(G Regulasies\)](#) is op alle fakulteite van die Universiteit van Pretoria van toepassing. Dit word vereis dat elke student volkome vertrouwd met hierdie regulasies sowel as met die inligting vervat in die [Algemene Reëls](#) sal wees. Onkunde betreffende hierdie regulasies en reëls sal nie as 'n verskoning by oortreding daarvan aangebied kan word nie.