Universiteit van Pretoria Jaarboek 2018

BScHons Geoinformatika (02240414)

Minimum duur van studie	1 jaar
Totale krediete	135

Programinligting

Hierdie inligting is slegs in Engels beskikbaar.

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 ure kontaktyd
Onderrigtaal	Module word in Engels aangebied
Departement	Geografie, Geoinformatika en Meteorologie
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
Departement	Geografie, Geoinformatika en Meteorologie
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

Navorsingsprojek 702 (GIS 702)

Modulekrediete	35.00
Onderrigtaal	Module word in Engels aangebied
Departement	Geografie, Geoinformatika en Meteorologie
Aanbiedingstydperk	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.

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
Departement	Geografie, Geoinformatika en Meteorologie
Aanbiedingstydperk	Semester 1 of Semester 2

Module-inhoud

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

Advanced geospatial data 705 (GIS 705)

Modulekrediete	15.00
Voorvereistes	GIS 310 of ekwivalent
Kontaktyd	28 kontakure per semester
Onderrigtaal	Module word in Engels aangebied
Departement	Geografie, Geoinformatika en Meteorologie
Aanbiedingstydperk	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.

Gevorderde afstandswaarneming 705 (GMA 705)

Modulekrediete	15.00
Voorvereistes	GMA 320 of ekwivalent
Kontaktyd	28 kontakure per semester
Onderrigtaal	Module word in Engels aangebied
Departement	Geografie, Geoinformatika en Meteorologie
Aanbiedingstydperk	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

Biometrie 780 (BME 780)

Modulekrediete	15.00
Diensmodules	Fakulteit Natuur- en Landbouwetenskappe
Voorvereistes	Geen voorvereistes.
Kontaktyd	2 Blokweke
Onderrigtaal	Module word in Engels aangebied
Departement	Statistiek
Aanbiedingstydperk	Semester 1

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

The principles of experimental design as required for the selection of an appropriate research design. Identification of the design limitations and the impact thereof on the research hypotheses and the statistical methods. Identification and application of the appropriate statistical methods needed. Interpreting of statistical results and translating these results to the biological context.

Natuurlike boomveld en woude: Ekologie en bestuur 700 (BOT 700)

Modulekrediete	15.00
Voorvereistes	Geen voorvereistes.
Onderrigtaal	Module word in Engels aangebied
Departement	Plant- en Grondwetenskappe
Aanbiedingstydperk	Semester 2

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

Definitions of woodlands and forests and vegetation and forest resources in southern Africa; Classification of forest and woodland in southern Africa; Woodland dynamics including disturbance, recruitment, growth and mortality, recovery after disturbance; Ecosystem services (microclimate and nutrient cycling, carbon sequestration etc); Sustainable forest resource management (resource assessment, socio-economic assessment e.g. wood and non-forest products, participatory resource management processes); Forest health; Monitoring of resource-use impacts and adaptive management; Development of a framework for sustainable conservation and use of non-timber forest products; Climate change and resilience. Forest disease and pathology.

Ruimtelike databasisse 787 (COS 787)

Modulekrediete	15.00
Voorvereistes	Geen voorvereistes.
Kontaktyd	2 lesings per week
Onderrigtaal	Module word in Engels aangebied
Departement	Geografie, Geoinformatika en Meteorologie
Aanbiedingstydperk	Semester 1 of Semester 2

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

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.

Basis van omgewingsgesondheid 772 (EHM 772)

Modulekrediete	5.00
Voorvereistes	Geen voorvereistes.
Onderrigtaal	Module word in Engels aangebied
Departement	Gemeenskapsgesondheid
Aanbiedingstydperk	Jaar

Inleiding tot omgewings- en beroepsgesondheid 775 (EOH 775)

Modulekrediete	10.00
Voorvereistes	Geen voorvereistes.
Onderrigtaal	Module word in Engels aangebied
Departement	Gemeenskapsgesondheid
Aanbiedingstydperk	Jaar

Internet GIS 706 (GIS 706)

Modulekrediete	15.00
Voorvereistes	INF 164 of ekwivalent
Kontaktyd	28 kontakure per semester
Onderrigtaal	Module word in Engels aangebied
Departement	Geografie, Geoinformatika en Meteorologie

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 verwesenlik.

Spesiale temas 707 (GIS 707)

Modulekrediete	15.00
Voorvereistes	Geen voorvereistes.
Kontaktyd	28 kontakure per semester
Onderrigtaal	Module word in Engels aangebied
Departement	Geografie, Geoinformatika en Meteorologie
Aanbiedingstydperk	Semester 1 of Semester 2

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

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.

Omgewingsbestuur 716 (GTX 716)

Modulekrediete	15.00
Voorvereistes	Geen voorvereistes.
Kontaktyd	2 praktiese sessies per week, 2 lesings per week
Onderrigtaal	Module word in Engels aangebied
Departement	Geologie
Aanbiedingstydperk	Jaar

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

Principles of integrated environmental management; environmental impact assessment; environmental management systems (ISO 14000 series); water resource management; environmental legislation; site investigation guidelines; natural hazard risk assessment; seismicity; project management and professional business practice.Geological models and software.

Verantwoordelike ekotoerisme-bestuur 714 (TBE 714)

Modulekrediete	20.00
Voorvereistes	Geen voorvereistes.

Kontaktyd	1 ander kontak per week, 1 lesing per week
Onderrigtaal	Module word in Engels aangebied
Departement	Afdeling Toerismebestuur
Aanbiedingstydperk	Semester 1

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

This module focuses on managing ecotourism (including the natural and cultural resource base) following eco-principles and guidelines in order to provide a conceptual framework for sustainable/responsible tourism development in response to community needs within the Southern African context. The concepts of ecotourism, alternative tourism, responsible tourism and geotourism are debated. The management of ecotourism is studied from a theoretical perspective addressing issues such as the planning, design and sustainable development of eco-facilities and spaces; co-creation and the experienced tourist; the greening of the environment; and managing sustainable events; against the backdrop of climate change using local, national and international case studies. The aim is to provide students with a holistic perspective of ecotourism and to hone their entrepreneurial view to issues within this arena in order to apply sustainable eco-principles to various situations, ranging from green architectural structures and spaces to sustainable community and pro-poor tourism projects.

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 vertroud met hierdie regulasies sowel as met die inligting vervat in die Algemene Reëls sal wees. Onkunde betrefffende hierdie regulasies en reels sal nie as ‘n verskoning by oortreding daarvan aangebied kan word nie.