

Universiteit van Pretoria Jaarboek 2018

BScHons Geologie (02240142)

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-graad in Geologie met 'n gemiddeld van 60% vir al die geologie modules op derde vlak. In die keuringsprosedure sal die kandidaat se volledige voorgraadse akademiese rekord oorweeg word. Die poste beskikbaar is beperk tot 25 en kandidate wat deur middel van hul voorgraadse graad vinniger gevorder het, sal voorkeur kry. Buite aansoekers en diegene met 'n ongewone graad struktuur kan na insae van hul akademiese rekords en met die diskresie van die departementshoof toegelaat word.

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

Kernmodules

Vloeistof-rots-interaksie 702 (GLY 702)

Modulekrediete 12.00

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.

This module traces the path of magmas from their ultimate source in the mantle, storage and evolution in the crust, through eruption at the surface where they interact with the landscape and atmosphere. Volcanic eruptions and the transfer of mass and volatiles from the deep interior of the planet. Transformation of the landscape by violent eruptions, and impact on the atmosphere on short timescales. An integrated history of magmatism and its central role in the production of the crust and the degassing history of the planet. The fluid dynamics of volcanoes, from viscous magma flows to turbulent, multiphase eruptions.

Komanalise 703 (GLY 703)

Modulekrediete 16.00

Voorvereistes Geen voorvereistes.

Kontaktyd 5 lesings per week, 5 praktiese sessies per week

Onderrigtaal Module word in Engels aangebied

Departement Geologie

Aanbiedingstydperk Jaar

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

Physical properties of rocks and minerals: porosity and permeability; density; magnetic properties; natural radioactivity; elastic properties; seismic wave attenuation; thermal properties; electrical properties. Basic principles and applications of various geophysical techniques: gravity, magnetic, resistivity, electromagnetic, seismic and radiometric techniques. Principles of basin analysis; controls on sea level change; subsurface analytical methods; basin mapping methods; subsidence analysis (decompaction and sediment loading, subsidence curves); sequence stratigraphy; sedimentation systems in different basin types; Precambrian basins.

Korsevolusie 704 (GLY 704)

Modulekrediete 12.00



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

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

Precambrian crustal evolution. Precambrian plate tectonics. Precambrian evolution of the African plate (Eburnean, Kibaran and Pan-African events). Phanerozoic evolution to the African plate; global examples of tectonics as a continental crustal source. Determination of deformational history of crustal rocks; determination of palaeostress conditions in ancient crustal rocks. Practical experience of structural analysis and determination of deformational history.

Mynboumetodes 706 (GLY 706)

Modulekrediete 16.00

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

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

Systematic review of major metallic and non-metallic ore types and examples in South Africa and world-wide; ore type models (geometry, size, geodynamic setting, grade, chemistry/mineralogy). Controlling legislation and infrastructural requirements for mining. Mining methods: open cast and underground. Metallurgical treatment, metallurgical plants and waste disposal. Pollution, acid drainage and acid rain.

Karteerkamp 707 (GLY 707)

Modulekrediete 9.00

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

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

Mapping and analysis of a geologically complex area using different techniques.



Honneursprojek 710 (GLY 710)

Modulekrediete	30.00
Voorvereistes	Geen voorvereistes.
Kontaktyd	5 praktiese sessies per week
Onderrigtaal	Module word in Engels aangebied
Departement	Geologie
Aanbiedingstydperk	Jaar

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

Independent acquisition of geological field and/or laboratory data, treatment and interpretation thereof, and writing of an honours essay.

Stollingspetrologie en geochemie 711 (GLY 711)

Modulekrediete	12.00
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.

Interpretation and application of advanced petrogenetic tools: the Rb/Sr and Sm/Ndisotopic systems, quantitative interpretation of binary and ternary phase diagrams, assimilation-fractional crystallisation – partial melting. Abundance of elements in the crust, crust-forming models. Hydrous geochemistry. Recognition of geochemical anomalies. Analytical methods and the treatment of geochemical data.

Metamorfe petrologie en geochemie 712 (GLY 712)

Modulekrediete	12.00
Voorvereistes	Geen voorvereistes.
Kontaktyd	2 lesings per week, 2 praktiese sessies per week
Onderrigtaal	Module word in Engels aangebied
Departement	Geologie
Aanbiedingstydperk	Jaar



Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

Geothermometers and geobarometers, PT-t loops. Studies of major African and other mobile belts: Limpopo, Natal-Namaqua, Pan-African and Hoggar.

Ekonomiese geologie 713 (GLY 713)

Modulekrediete 16.00

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.

Basic remote sensing methods and their applications to geology; basic geophysical and geochemical exploration techniques; exploration target generation - philosophies and methods; professional geological practice; the SAMREC and similar codes; geologists in the business environment; case studies. Practical component (runs parallel to theory above) encompasses ore-microscopy; ore mineral identification; ore textures; analysis of ore assemblages; instrumental techniques applied to ores.

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 betreffende hierdie regulasies en reëls sal nie as 'n verskoning by oortreding daarvan aangebied kan word nie.