



# Universiteit van Pretoria Jaarboek 2017

## BScHons Aktuariële Wetenskap (02240278)

**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 toepaslike baccalaureus-graad met Wiskundige Statistiek en Aktuariële Wetenskap op 300-vlak.
- 'n gemiddeld van 60% vir alle modules op derde vlak.
- Vrystelling aanbevelings vir ten minste vyf van die A100- en A200-vlak vakke van die Aktuariële Vereniging van Suid-Afrika.
- IAS 361 Versekering en Aktuariële aansoeke, wat 'n voorvereiste vir die kernmodule IAS 712 Laste.
- Studente van ander geakkrediteerde instellings moet voldoen aan dieselfde vereistes gebaseer op gelykwaardige modules op hul instellings. Daarbenewens studente van ander geakkrediteerde instellings kan ook vereis word om 'n ingang evaluering te slaag.
- Studente getalle is beperk. Seleksie is gebaseer op prestasie in die voorafgaande graad, op voorwaarde dat die minimum vereistes voldoen soos uiteengesit in (i) tot (iv) hierbo.
- Historiese prestasie gedurende vorige studies sal ook oorweeg word in studente kies. Spesifieke aandag sal gegee word aan modules herhaal en duur van studie.
- Enige addisionele toelatingsvereistes soos deur die departementshoof in oorleg met die departementele nagraadse keurkomitee.



## Ander programspesifieke inligting

To qualify for this degree, the candidate must successfully complete a total of at least 135 credits, made up from modules from the curriculum in collaboration with, and subject to, the approval of the Head of the Department of Insurance and Actuarial Science.

## Bevordering tot volgende studiejaar

The progress of all honours candidates is monitored biannually by the head of department. A candidate's study may be terminated if the progress is unsatisfactory or if the candidate is unable to finish his/her studies during the prescribed period.

## 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**

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Fundamental credits: 30

Core credits: 75

Elective credit: 30

### Kernmodules

#### Aktuariële kommunikasie 722 (IAS 722)

**Modulekrediete** 15.00

**Voorvereistes** Geen voorvereistes.

**Kontaktyd** 2 lesings per week

**Onderrigtaal** Module word in Engels aangebied

**Akademiese organisasie** Aktuariële Wetenskap

**Aanbiedingstydperk** Semester 2

#### Module-inhoud

Effektiewe kommunikasie van tegniese aktuariële konsepte, die ontwerpproses van 'n dokument, beplanning en struktuur van 'n dokument of aanbieding, styl en toon van 'n dokument of aanbieding. Opstel van konsepdokumente (briewe, verslae, besprekings-dokumente, memorandum, e-posse). Aanbiedings (voorbereiding en voordrag, opvolg, ontwerp van visuele hulpmiddels).

#### Actuarial risk management 712 (IAS 712)

**Modulekrediete** 50.00

**Voorvereistes** IAS 361

**Kontaktyd** 4 lesings per week, 2 praktiese sessies per week

**Onderrigtaal** Module word in Engels aangebied

**Akademiese organisasie** Aktuariële Wetenskap

**Aanbiedingstydperk** Jaar



## Module-inhoud

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Surplus management. Mergers, acquisitions, insolvency and closure. Options and guarantees. Stakeholders. External environment. Regulation. Introduction to financial products and customer needs. Benefits overview and providers of benefits. Life insurance overview and life products. General insurance overview and products. Cash flows of simple products. Contract design. Project management. Capital project appraisal. Money markets. Bond markets. Equity markets. Property markets. Futures and options. Collective investment schemes. Overseas markets. Economic influences on investment markets. Other influences on investment markets. Relationship between returns on asset classes. Valuation of individual investments. Valuation of asset classes and portfolios. Investment strategy – institutions. Investment strategy – individuals. Developing an investment strategy. Modelling. Data. Setting assumptions. Expenses. Pricing and financing strategies. Discontinuance. Valuing liabilities. Accounting and disclosure. Surplus and surplus management. Sources of risk. Risks in benefit schemes. Pricing and insuring risks. The risk Management process. Risk management tools. Capital management. Monitoring.

## Navorsingsprojek 780 (NPN 780)

**Modulekrediete** 30.00

**Voorvereistes** Geen voorvereistes.

**Onderrigtaal** Aparte klasse vir Engels en Afrikaans

**Akademiese organisasie** Aktuariële Wetenskap

**Aanbiedingstydperk** Jaar

## Module-inhoud

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The research project is compulsory. A detailed project proposal should be submitted to the head of department by a prescribed date for approval, as described in the departmental document in this regard.

## Keusemodules

### Finansies en beleggings 700 (FNI 700)

**Modulekrediete** 40.00

**Kontaktyd** 2 lesings per week, 2 praktiese sessies per week

**Onderrigtaal** Module word in Engels aangebied

**Akademiese organisasie** Aktuariële Wetenskap

**Aanbiedingstydperk** Semester 2

## Module-inhoud

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The application of modern techniques in financial management to the financing of corporate entities and the management of assets. Topics include: the theory of finance, valuation of investments, asset modelling, capital structure and the cost of capital, portfolio management, capital project appraisal and performance management.



## Lewensversekering 700 (LEW 700)

<b>Modulekrediete</b>	40.00
<b>Voorvereistes</b>	Geen voorvereistes.
<b>Kontaktyd</b>	2 praktiese sessies per week, 2 lesings per week
<b>Onderrigtaal</b>	Module word in Engels aangebied
<b>Akademiese organisasie</b>	Aktuariële Wetenskap
<b>Aanbiedingstydperk</b>	Semester 2

### Module-inhoud

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The following aspects of the operation of a life insurance company are covered: General business environment; products offered; asset shares for life insurance contracts; with-profits surplus distribution; actuarial funding; models; setting of assumptions; aspects of products design; alterations to contracts; development and maintenance; investment; risk management procedures including reinsurance and underwriting; cost of guarantees; policy data checks; capital management and the actuarial control cycle. Modelling and monitoring policy cashflows for purposes of pricing, profit analysis, statutory valuation reserves and ongoing solvency.

## Enterprise risk management 721 (IAS 721)

<b>Modulekrediete</b>	40.00
<b>Kontaktyd</b>	2 lesings per week, 2 praktiese sessies per week
<b>Onderrigtaal</b>	Module word in Engels aangebied
<b>Akademiese organisasie</b>	Aktuariële Wetenskap
<b>Aanbiedingstydperk</b>	Semester 2

### Module-inhoud

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ERM framework. External risk frameworks. Stakeholders. Risk appetite. The risk management function. Risk management processes. Risk identification and assessment. Risk classification. Risk Measurement. Risk modelling. Analysis of data. Copulas. Fitting models. Extreme Value Theory. The use of models in ERM. Analysis of selected risks. Risk optimisation and risk responses. Risk management of selected risks. Economic Capital.

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.