

## Afrikaans

### TEORETIESE FISIKA

Komplekse sisteme en  
toepassings van  
kwantumveldteorie

# 2014

## English

### THEORETICAL PHYSICS

Complex systems and the  
applications of quantum  
field theory

#### Toelatingsvereistes:

- Afrikaans of Engels (Huis taal of Eerste Addisionele Taal) 4
- Wiskunde 6
- Fisiese Wetenskappe 4

#### Prof KK Müller-Nedebock

Programverteenwoordiger  
Program representative

T: 021-808 3386, kkmn@sun.ac.za

<http://www.physics.sun.ac.za/theory/>

#### Admission requirements:

- Afrikaans or English (Home Language or First Additional Language) 4
- Mathematics 6
- Physical Sciences 4

1ste jaar: kurrikulum 7	(140 krediete/credits)	1st year: curriculum 7
Fisika	114(16), 144(16)	Physics
Rekenaarvaardigheid	171(4)	Computer Skills
Rekenaarwetenskap	114(16), 144(16)	Computer Science
Wiskunde	114(16), 144(16)	Mathematics
Waarskynlikheidsleer en Statistiek	114(16)	Probability Theory and Statistics
Toegepaste Wiskunde	144(16)	Applied Mathematics
Wetenskapkommunikasievaardigheid	172(8)	Scientific Communication Skills

2de jaar kurrikulum Verpligte modules	(133 krediete/credits) (101 krediete/credits)	2 <sup>nd</sup> year curriculum Compulsory modules
Fisika	214(16), 224(16), 244(16), 254(16)	Physics
Wetenskaplike Berekening	272(5)	Scientific Computing
Wiskunde	214(16), 244(16)	Mathematics

plus

Keusemodules	(32 krediete/credits)	Elective modules
Toegepaste Wiskunde	214(16), 244(16) of/or	Applied Mathematics
Rekenaarwetenskap	214(16), 244(16)	Computer Science

3de jaar kurrikulum Verpligte modules	(133 krediete/credits) (101 krediete/credits)	3rd year curriculum Compulsory modules
Fisika	314(16), 334(16), 342(8), 344(16), 352(8), of/or 372(8)	Physics
Toegepaste Wiskunde	364(16)	Applied Mathematics
Wetenskaplike Berekening	372(5)	Scientific Computing
Wiskunde	324(16)	Mathematics

plus

**Keuse afhanklik van die keuse wat in die tweede jaar uitgeoefen is.**

**Choice dependent on the choice made in the second year.**

Keusemodules	(32 krediete/credits)	Elective modules
Toegepaste Wiskunde	324(16), 354(16)	Applied Mathematics
Rekenaarwetenskap	314(16), 315(16), 334(16)	Computer Science
Wiskunde	314(16), 325(16), 365(16), 378(32)	Mathematics
Fisika	384(16)	Physics

**Let Wel:** Hierdie stroom lei tot 'n honneursprogram in Teoretiese Fisika en, met die volg van toepaslike keusemodules, ook tot 'n honneursprogram in Fisika of in Fisiese en Wiskundige Analise.

**Please Note:** This stream leads to an honours programme in Theoretical Physics and also, if applicable elective modules are taken, to an honours degree programme in Physics or in Physical and Mathematical Analysis.