

University of Pretoria Yearbook 2020

Seasonal and climate modelling 703 (WKD 703)

| | |
|-------------------------------|--|
| Qualification | Postgraduate |
| Faculty | Faculty of Natural and Agricultural Sciences |
| Module credits | 12.00 |
| Programmes | BScHons Meteorology |
| Prerequisites | No prerequisites. |
| Contact time | 1 discussion class per week, 1 lecture per week |
| Language of tuition | Module is presented in English |
| Department | Geography Geoinformatics and Meteorology |
| Period of presentation | Semester 1 or Semester 2 |

Module content

Fundamentals of seasonal forecasting. The El Niño/Southern Oscillation. Empirical orthogonal functions. Canonical correlation analysis. Empirical forecast models practical. Sea-surface temperature models. Fully coupled and two-tiered general circulation modelling. Dynamical and empirical downscaling techniques. Significance testing using Monte Carlo techniques. Modelling pitfalls. User application forecasting. Projections of decadal and multi decadal climate anomalies.

The information published here is subject to change and may be amended after the publication of this information. The [General Regulations \(G Regulations\)](#) apply to all faculties of the University of Pretoria. It is expected of students to familiarise themselves well with these regulations as well as with the information contained in the [General Rules](#) section. Ignorance concerning these regulations and rules will not be accepted as an excuse for any transgression.