

MPhil IN DISASTER RISK SCIENCE AND DEVELOPMENT (DRSD)



The programme

This cross-disciplinary one-year programme is offered by the Research Alliance for Disaster and Risk Reduction (RADAR), at Stellenbosch University.

The programme aims to provide students with an integrated understanding of disaster risk and its implications for sustainable development in Africa, with a strong but not exclusive focus on South Africa.

It seeks to enable students to understand the interactions between social and physical risk producing processes, and equip students with the skills to investigate, analyse and understand disaster risk. It provides a grounding for multiple career paths, including teaching, research and practice.

The MPhil programme combines taught modules with independent research. Focus areas include:

- The conceptualization of disaster risk and risk reduction
- Disaster risk assessment, including interdisciplinary risk research, approaches, methods and tools
- The use of Geographic Information System (GIS) and Remote Sensing

Overview

This programme structure includes three compulsory disaster risk-related modules. These are:

- Disaster Risk Science and Development
- Disaster Risk Assessment and Analytics
- A 90-credit thesis

Students who have not completed RADAR's Honour's level module on *Disaster Risk Studies and Development* (12825:717) will take this as a fourth compulsory module.

Students without training in GIS will also take a compulsory module introducing GIS and Remote Sensing.

Students who have completed the Honour's module and/or have prior training in GIS and Remote Sensing will replace these modules with electives drawn from Postgraduate programmes offered by Stellenbosch University's School of Public Leadership and the Sustainability Institute. These include modules on:

- Sustainable Development
- Sustainable Cities
- Environmental Issues
- Environmental Governance

The strong emphasis on student research aims to ensure that students receive the foundation required to progress to a PhD programme

Admission requirements

Applicants require a BA Honour's or BSc Honour's in Geography, Environmental Studies, Geospatial Analysis, Agriculture, Anthropology, Sociology, Development Studies or a qualification deemed appropriate by RADAR and the University's Senate. An average achievement of 65% is required.

You will be given preference if you have completed Stellenbosch University's Honour's module on *Disaster Risk Studies and Development* (12825:717). If you did not complete this module, you will be considered at the discretion of RADAR and the University's Senate.

Information on applying

General information

Visit www.sun.ac.za/english/students/ to obtain an application form or **APPLY ONLINE:** www0.sun.ac.za/pgstudies/

For enquiries send an email to info@sun.ac.za or phone +27 21 808 9111

Address: The Registrar, Stellenbosch University, Private Bag X1, MATIELAND 7602

The closing date for applications by South African students is the 31st October 2018. Applications open in March 2018.

Bursaries and loans

The University offers merit and sports bursaries, bursaries for studies in specific faculties or departments, general bursaries and bursary loans for needy students (see Faculty of Arts and Social Sciences Calendar Part 2).

Visit www.maties.com/bursaries-loans-and-fees.html

Phone +27 21 808 4208 or e-mail postgradfunding@sun.ac.za for more information

Address: The Registrar (Head: Postgraduate Bursaries and Loans), Stellenbosch University, Private Bag X1, Matieland, 7602

Tuition fees

Visit www.maties.com/bursaries-loans-and-fees.html

Division for Student Fees: Tel: +27 21 808-9111 or e-mail: info@sun.ac.za

Accommodation

Visit www.maties.com/accommodation.html

University accommodation: Apply online or contact +27 21 808 9111 for an application form.

Private accommodation: Student Housing Office, phone: +27 21 808 2848

Closing date for applications: 30 June of the year before accommodation is needed.

International students

International (Non-South African) students must apply through the Stellenbosch University International Office

Visit www0.sun.ac.za/pgstudies/howtoapply.html

Tel: +27 21 808 2565, or e-mail: nrrhoda@sun.ac.za

Address: International Office, Stellenbosch University, Private Bag X1, 7602 Matieland, South Africa

The closing date for applications by international students is the 31st August 2018. Applications open in March 2018.

Ensure that your application is complete and that you submit all the necessary supporting documents.

Check that your application is successfully entered onto the University's admission system.

Structure of the programme

The first half of the programme (primarily Semester one) focuses on coursework, with the second part allocated to student research.

The coursework comprises lectures, tutorials and other contact teaching, assignments and projects. The core *Disaster Risk Science and Development* and *Disaster Risk Assessment and Analytics* modules, and the elective *Disaster Studies and Development* modules, are delivered by RADAR. They are taught over three approximately 10-week periods, with 2-3 contact sessions per week. Students are expected to read extensively in between contact sessions. The electives, are taught by Stellenbosch University's Centre for Geographical Analysis (CGA), Sustainability Institute and School of Public Leadership. They are block-taught over the course of a week, followed by take-home assignments.

Module Content

Core modules

Disaster Risk Science and Development (13134:871)

This first module in the MPhil DRSD programme builds on the foundation established in Stellenbosch's BA Honours module on *Disaster Risk Studies and Development*. It aims to consolidate a broad-based theoretical understanding of disaster risk. The module further aims to build strategic analytic and management capabilities across sectors, including critical knowledge of risk reduction processes and practices. It provides advanced knowledge on the hazard and vulnerability conditions driving specific, priority risks in South and southern Africa, pertinent governance frameworks and good practice in addressing these risks.

Disaster Risk Assessment and Analytics (13136:871)

This module builds on the foundation established in the *Disaster Risk Science and Development* module (13134:871). The module aims to enable students to assess and analyse the complex risk configurations that characterise the risk environment in the Western Cape and more broadly. It aims to expose students to different risk and vulnerability assessment methods for specific hazard types, geographic and administrative scales and contexts. It provides the basic skills needed to evaluate the robustness of methods, and apply and integrate different disaster risk and vulnerability assessment approaches and tools. It is taught in collaboration with skilled, applied risk scientists, including experts from the Centre for Scientific and Industrial Research (CSIR).

Research thesis (13181:871)

All students are expected to undertake the 90-credit (20 000 word) mini-thesis. Students chose their own topics, based on their areas of interest, and drawing on the theoretical and practical content of the coursework component of the programme. Students will undertake fieldwork, and although it is recommended that the research be conducted in the Western Cape, to allow hands-on engagement between students and supervisors, students may do their fieldwork elsewhere.

Electives

GIS for Risk Reduction (13182:871)

GIS skills are necessary to successfully complete the Risk Assessment and Analytics module. The GIS for Risk Reductio module provides students without prior expertise in spatial data collection and analysis with a foundational knowledge on GIS, and earth observation and remote sensing. It will be delivered in collaboration with the CGA.

Disaster Risk Studies and Development (13134:712)

This module introduces students to the concepts of disaster, vulnerability and risk. It examines the drivers of risk for frequently occurring disasters in the Western Cape and Southern Africa, with an emphasis on the urban environment. It also examines the policy context in which efforts to reduce risk occur. The module aims to equip students to apply an interdisciplinary perspective on disasters and risk, which considers both biophysical elements and the social and economic forces that influence disaster vulnerability and resilience.

Sustainable Development (58718:771)

This module is delivered by the Stellenbosch University's Sustainability Institute. It provides course participants with an overview of the most significant global environmental, social and economic challenges that face humankind, and an insight into the solutions suggested by the universal commitment to sustainable development. The module aims to enable students to recognise, understand and apply the divergent interpretations of sustainable development that currently exist. It is block-taught over the course of a week, followed by a take-home assignment. Classes are held at the Institute's Lynedoche premises, just outside Stellenbosch.

Sustainable Cities (11199:775)

This module is also delivered by the Sustainability Institute. The overall aim of this module is to introduce students to some of the key concepts and trends in the vibrant and fast expanding literature on contemporary urban challenges, and how to make cities more sustainable. The module delves into the differential dynamics of worldwide urbanisation, particularly in the global South. It explores state-of-the-art thinking on how best to respond to the ecological impacts of urbanisation. It has a strong focus on the implications for urban citizens living in slums and reliant on informalised economic and eco-system processes. It is block-taught over the course of a week, followed by a take-home assignment. Classes are held at the Institute's Lynedoche premises.

Environmental Issues (11179:771)

This module is delivered by Stellenbosch University's School of Public Leadership. It aims to provide students with an understanding of the most important environmental issues of our time. It strives to ensure that students develop an awareness of the causes, and limits to our understanding of, environmental processes. These include the need for conservation; loss of biodiversity, habitat destruction and degradation, and their measurement; biological invasions; climate change; over-exploitation; pollution; human population growth; the ecosystem services framework and policies and legal frameworks to stem biodiversity loss. It is block-taught over the course of a week, followed by a take-home assignment.

Environmental Governance (11919:771)

This module is delivered by the School of Public Leadership. The module introduces students to the meaning of environmental governance from a public and development management perspective, and the socio-political contexts within which environmental governance takes place. It examines the policy environment in South Africa; institutional and organisational arrangements; governance processes, systems and structures; as well as environmental leadership challenges. It explores collaborative environmental governance approaches. It is block-taught over the course of a week, followed by a take-home assignment.

Please note: The MPhil programme is taught neither part-time nor via distance learning. All students are required to attend classes in Stellenbosch.

