MPHIL IN

DISASTER RISK SCIENCE AND DEVELOPMENT

2026

Stellenbosch UNIVERSITY
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UNIVERSITEIT

RADAR
Research Alliance for Disaster and Risk Reduction

THE PROGRAMME

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

In a world increasingly affected by disasters, and facing the effects of climate change, understanding why disasters occur and how to reduce them has never been more important. RADAR's interdisciplinary MPhil in Disaster Risk Science and Development aims to provide students with an integrated understanding of the risk environment driving disasters in South Africa, Africa and globally, the intersections between disaster and climate risk science, research and practice modalities and applied research tools to better understand this environment.

Our programme does not focus on disaster and emergency management. Instead, it seeks to equip you with the skills to investigate and understand complex risk environments, especially as dynamics are reshaped and intensified by anthropogenic climate change. It also develops the strategic analytical capabilities needed to conceptually integrate and promote proactive risk reduction, resilience, and sustainable development.

It provides a grounding for multiple career paths, including academia and teaching; research and practice in the public, private and non-governmental sectors; disaster risk management and public service. Our students have gone on to work in academic institutions, disaster management centres, a range of government departments, local and international nongovernmental organisations, companies involved in research and training and as consultants.

ABOUT RADAR

RADAR is a teaching and research centre based within the School for Climate Studies. Our academic programmes are housed within the Faculty of Arts and Social Sciences at Stellenbosch University. We work to build capacity and knowledge in the disaster risk field, in the Western Cape, South Africa and the continent. Our work starts from the recognition that disasters are not inevitable and can be prevented by tackling the development problems that underlie them. We focus on understanding the risk environment, the factors driving the risk of disasters and how to address these, as well as strengthening capacity to reduce risk and respond more effectively to disasters when they occur. We emphasise applied research and training, and collaborate with disaster management and other practitioners to understand and address real-world problems, with many of our projects providing service-learning opportunities for our students.

STRUCTURE OF THE PROGRAMME

The MPhil combines coursework and a research thesis, with most students completing their degree within 18 months. Students complete their coursework in the first eight months and work on their thesis for the remainder of the programme. Students must hand in their thesis for examination by the end of October, if they hope to graduate in March-April the following year.

Although the programme is full-time, it combines blocked contact time with remote learning, which enables learners to combine study and work. Students need not be based in Stellenbosch but are expected to be in Stellenbosch for three six-day in-person contact blocks during the coursework period (one block per coursework module). These contact blocks are combined with two to three weeks of remote teaching, with students expected to participate in two two-hour virtual contact periods per week and complete assignments and tasks. **Please note that we do not offer fully online or distance learning. It is compulsory for students to travel to Stellenbosch.**

The programme comprises four compulsory disaster risk-related modules. These are:

- Disaster Risk Studies and Development (DRSD I)
- Extreme Event and Risk Assessment Analytics
- Disaster Risk and Climate Science
- A 20,000-word mini-thesis

Students who have completed DRSD I (13134:712) as part of RADAR's Postgraduate Diploma in Disaster Risk Studies and Development (13689:788) can choose two elective modules in the place of DRSD I. These electives are drawn from postgraduate programmes offered by Stellenbosch University's Centre for Sustainability Transitions and School of Public Leadership:

- Environmental Issues 11179:771
- Environmental Governance 11919: 771
- Introduction to Sustainability Transitions 14943: 872

CORE MODULES

DISASTER RISK STUDIES AND DEVELOPMENT **(DRSD I) (13134:712)***

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

*This module is compulsory for all students who have not completed RADAR's Postgraduate Diploma in Disaster Risk Science and Development.

DISASTER RISK AND CLIMATE SCIENCE **(71040:871)**

This module examines the complex implications of climate change for the risk environment, in South Africa, the content and globally. It aims to familiarise students with the interrelationship between climate change, disaster risk and development, concepts, frameworks and basic climate science. It consolidates a broad-based theoretical understanding of disaster risk and develops students' ability to engage critically with prevailing conceptual models, frameworks and practice, developing strategic analytic capabilities that allow students to bridge the gap between theoretical frameworks and the practical application. Content includes:

- The core concepts and theories framing climate change scholarship and practice
- Basic climate science, including global climate regulation, climatic zones in southern Africa and the drivers of anthropogenic climate change
- Global, regional and domestic frameworks, legislation and institutional architecture shaping climate change action and the synergies (or lack of) with disaster risk management policies and practice in South Africa and elsewhere

EXTREME EVENT AND RISK ASSESSMENT ANALYTICS **(71041:871)**

The purpose of this module is to build technical capabilities for analysing complex risk configurations, including extreme events. It aims to expose students to a suite of tools to interrogate disaster and climate-related risk. 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 also introduces students to basic spatial analysis and mapping. Focus areas include:

- Foundational social science research methods, including qualitative, quantitative, and participatory approaches
- The mandate for, principles and application of disaster risk assessments in South Africa,
- Basic GIS and remote sensing principles and tools, as well as climate-change-related analysis and interpretation

RESEARCH THESIS **(13181:871)**

All students are expected to undertake a 90-credit mini-thesis. Students choose 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 need not conduct their research in Stellenbosch or the surrounding areas. Students will develop a thesis topic with the guidance of their supervisor and are not expected to have identified a topic or supervisor when they apply.

ELECTIVE MODULES

Only students who have already completed DRSD I are eligible to take electives.

INTRODUCTION TO SUSTAINABLE TRANSITIONS **(14943:872)**

Offered by Stellenbosch University's Centre for Sustainability Transitions (CST) the Introduction to Sustainability Transitions introduces the urgent and rising interest in supporting transitions to just and sustainable futures, emphasising perspectives from the global South. The central aim of this module is to empower students with an understanding of key approaches to transformative change, and importantly, a sense of how to apply these approaches in response to contextual issues in personal or professional contexts. This module introduces students to the key trends and drivers underlying the sustainability poly-crisis. It also emphasises the complex, interconnected nature of social, ecological and economic sustainability challenges and the need for deep, systemic transformations. Building on this foundation, the key focus on this module is how change happens, and the array of approaches to transformative change that might address urgent sustainability challenges. The module is taught in hybrid mode, and combines predominantly online learning with short contact blocks.

ENVIRONMENTAL ISSUES **(11179:771)**

This module is delivered by Stellenbosch University's School of Public Leadership (SPL). 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, and limits to, our understanding of environmental processes. Topics 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. The module is taught in hybrid-mode.

ENVIRONMENTAL GOVERNANCE **(11919:771)**

This module is delivered by the SPL. 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. The module is taught in hybrid-mode.

PROGRAMME 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% in your last year of previous study is required to be considered.

INFORMATION ON APPLYING

APPLICATIONS

You can find information on fees, bursaries and loans and how to apply, on Stellenbosch University's postgraduate studies portal **here.** You will also complete the **online application** on this portal.

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

Please note that **applications close for international students on the 30th of August** for the following academic year. **Applications for South African students close on the 30th of October** for the following academic year. No late applications will be considered.

Please **follow the instructions on the application page** and make sure that you upload all the necessary documents, including certified copies of your previous qualification certificates and transcripts, a 1–2-page letter of motivation and your CV. Your CV should be no longer than 4 pages. If you do not upload all the necessary documents, your application will not be considered. International students may need to provide additional documentation, so please read the instructions carefully. Also make sure that your application is successfully submitted to the University's admissions system.

BURSARIES

The University offers merit and sports bursaries, bursaries for studies in specific faculties or departments, general bursaries and bursary loans for needy students. More information on bursaries is available on the postgraduate studies portal. You can also phone **+27 21 808 4208** or e-mail **postgradfunding@sun.ac.za** for more information. Bursaries are usually in high demand and most close by October, so please make sure that you explore your options as early as possible to avoid disappointment.

Please note that RADAR does not offer bursaries at this time, but keep an eye on our LinkedIn page for news on our activities and information on bursary opportunities offered by others: **linkedin RADAR.**

INTERNATIONAL STUDENTS

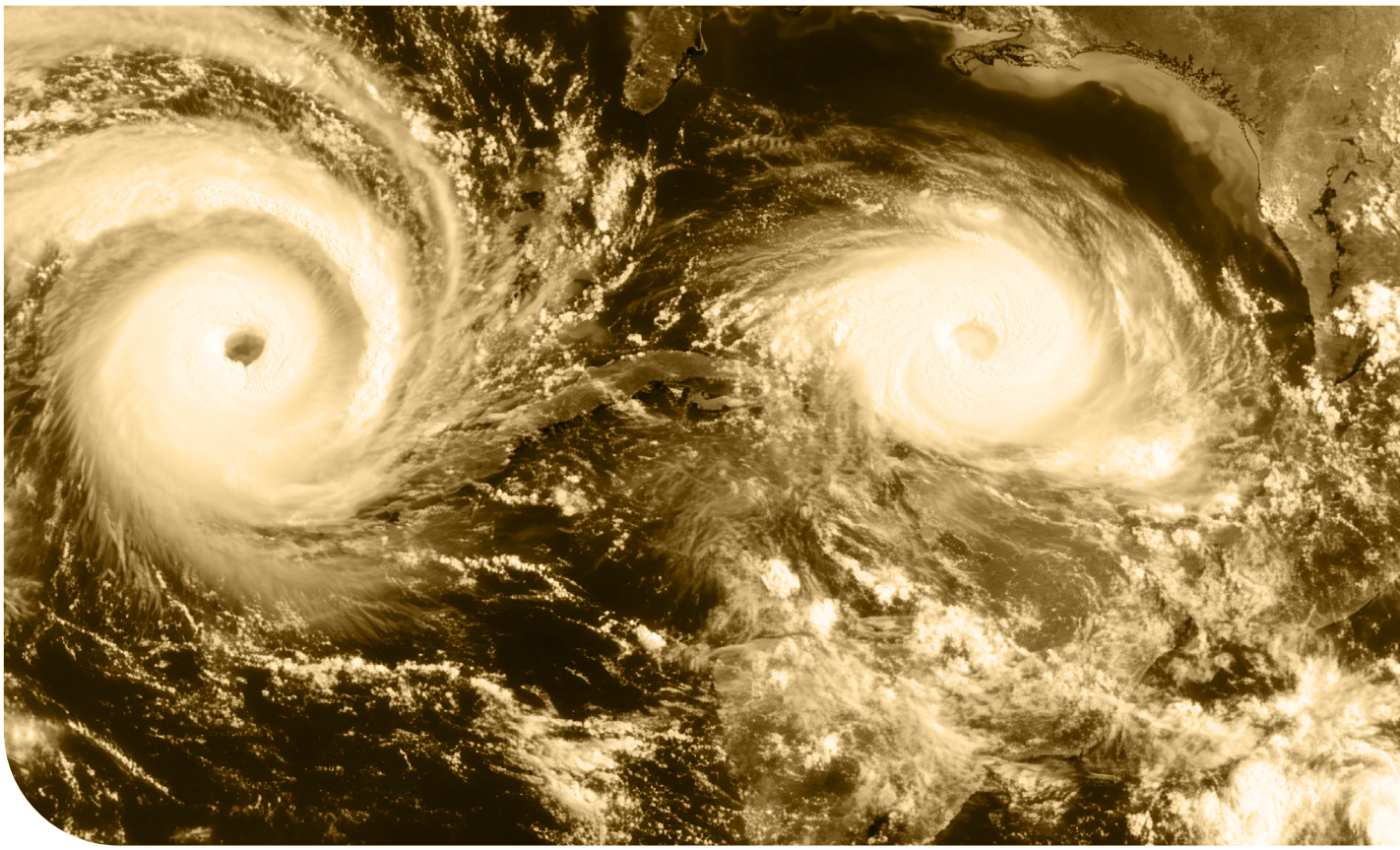
International students need not apply for a student visa, unless you plan to reside in Stellenbosch for the duration of the programme. A tourist visa is sufficient for students based on other countries. You can find more information on visas and support services for international students here: **SU International.**

ACCOMMODATION FOR CONTACT BLOCKS

Unfortunately, RADAR cannot assist with your accommodation needs during your contact blocks. However, there are numerous bed and breakfast, backpackers and self-catering options available in Stellenbosch, many within easy walking distance from campus. Please note, however, that Stellenbosch is a popular tourist destination, so make sure that book accommodation well in advance.

ADDITIONAL INFORMATION

For programme-related queries please contact the programme convenor,
Dr Robyn Pharoah, at robynpharoah@sun.ac.za or phone **+27 21 808 9492.**



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