## DEPARTMENT OF MATHEMATICAL SCIENCES

## Introduction

The department of Mathematical Sciences consists of 3 disciplines, Pure Mathematics, Applied Mathematics \& Statistics. We offer service courses, as well as dual majors.

## Career path

- Research in higher education, government and industry
- Teaching in the public schools, community colleges and colleges
- Testing and validation of processes and systems including computer software
- Statistical support including marketing research
- Actuarial work and experimental design
- Software design and data analyst
- Mathematical modelling in business, management information systems and computer information systems
- Data Scientist
- Insurance agencies
- Airlines and other transportation service providers
- Financial institutions


## MOUs

The University of Zululand through the department of Mathematical Sciences has signed MOUs with the following institutions:

- NRF Wits CoE MaSS
- DMISRS
- UP for Teaching Grant Programme


## Main Research Focus Areas

- PDEs and ODEs
- Stochastic analysis and applications to the mathematics of finance
- Optimisation
- Mathematical biology with emphasis on epidemiology
- Statistics
- General Relativity, Astrophysics and Cosmology
- Signal Processing, Machine learning and Image Analysis


## Expert List

Prof A Beesham, Prof SS Xulu, Mr L Majozi Dr MB Matadi (HoD), Dr S Krishnannair, Dr SL Tilahun, Mr J Cloete, Mr W Dlamini, Mr PL Zondi, Mr S Sibiya, Mr M Kubkheka, Mr M Njabulo

Research output 2018-2020


Postgrads stats 2017-2020

|  | Enrolled | Completed |
| :--- | :--- | :--- |
| PhD | 4 | 2 |
| MSC | 15 | 3 |
| Honours | 20 | 18 |

## Recent workshops

AWMO (African Workshop on Mathematical Optimisation) University of Zululand, 11-15 November 2019

Mathematics in Industry Modelling Workshop -MISG 2020: 8-13 January 2020 at the KwaDlangezwa Campus. Participants: 27 academics, researchers and 36 postgraduate students teamed up with 6 representatives from local industries in order to solve various industry-related problems using mathematical models.


## Community Engagement

We believe that it is vital to communicate our work to the world outside of academia. Every year, the department of Mathematical sciences is organizing a workshop in Hlabisa municipality to enhance knowledge of High school teachers in Mathematics and Statistics.


