



### CONTACT DETAILS

To find out more about University of Venda's  
Department of Mathematical and  
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**University of Venda**

*Creating Future Leaders*



**FACULTY OF  
SCIENCE, ENGINEERING  
AND AGRICULTURE**

Department of Mathematical and Computational Sciences



## ABOUT THE DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES

Mathematics can be described as a science that studies quantitative relationships and space formations in the world we live in. The basic concepts of mathematics needed for describing natural processes are premised on the concept of a number and that of a function. Over many years' mathematics has evolved and split mainly into two identifiable areas of pure mathematics and applied mathematics. The department specializes in both areas and hence its name is derived from this understanding.

Today, mathematics is used as a useful tool in many fields of application throughout the world which include engineering, natural sciences, medicine and social sciences. The department endeavours to train students in mathematics and its applications.

In pursuance of its mandate, the department offers a variety of courses in pure and applied mathematics that run concurrently with other courses either in physics or chemistry or statistics to form learning programmes. The department also offers post graduate training in pure and applied mathematics at Honours, Masters and PhD levels, and service mathematics to other schools of the university.

The research interests for the staff and post graduate students in the department are in the areas of number theory, algebra, graph theory, fluid mechanics, differential equations, financial mathematics and biological mathematics.



### VISION

To strive to contribute to the scientific, technological and social upliftment of the communities that the university serves using mathematics.

### MISSION

The Department of Mathematical and Computational Sciences itself to participate in the university's learning and teaching, research and community engagement programmes through rendering the following services:

Relevant mathematics programmes that conform with its vision in line with the vision of the university. Enabling, and caring learning and teaching environment to students from diverse backgrounds.

Development of a culture that cultivates and promotes intellectual curiosity and a diversity of ideas. Mathematical based research and knowledge development guided by quality and vigour. Community development programmes.



## POSSIBLE CAREER OPPORTUNITIES IN LINE WITH QUALIFICATIONS OFFERED BY THE DEPARTMENT

There has been a phenomenal growth in demand for mathematics experts worldwide. Mathematician, actuary and statistician jobs are among the most attractive career paths with very attractive income levels. The following are some of the different mathematics careers.

**Actuarial science** - apply mathematical and statistical skills to define, analyse, and solve complex problems arising in the insurance and pension fields.

### Data science - Financial analysts

Information technology and computing -create computing programmes, help solve complex systems problems for engineers, etc.

**Economics, business management and consulting** - production management, forecasting and financial modeling. Teaching at the elementary or secondary school level Mathematics or Statistics as a graduate student; especially for an academic career -postgraduate studies leading to and including PhD studies in various areas of application.

