



CONTACT DETAILS

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

The Department of Mathematical and Computational Sciences focuses on three main disciplines: Mathematics, Statistics, and Computer Science. These fields work together to help us understand the world, solve real-life problems, and make better decisions using data and technology.

Mathematics is about patterns, numbers, and logical thinking. It includes pure mathematics, which develops theories and ideas, and applied mathematics, which uses those ideas to solve practical problems in areas like engineering, physics, and finance. Mathematics builds strong problem-solving and analytical skills.

Statistics is the science of working with data. It involves collecting, analysing, and interpreting information to make informed decisions. Statistics is widely used in fields such as health, business, economics, and social sciences, especially in today's data-driven world.

Computer Science is a field that uses maths and logical thinking to help us understand, design, and improve computer systems that solve real-world problems. It combines theory and practical skills in areas such as programming, software development, algorithms, databases, networks, artificial intelligence, and data science. The subject encourages innovation, problem-solving, and responsible use of technology, while bringing together ideas from science, engineering, and creative thinking.

These three disciplines are closely connected. Together, they form the foundation of exciting fields like data science, where mathematics, statistics, and computing are combined to solve complex problems. The department offers a variety of undergraduate programmes in these areas, often combined with subjects like physics or chemistry. At the postgraduate level, students can continue their studies in Mathematics, Statistics, and Computer Science, as well as specialised programmes such as an MSc in E-Science

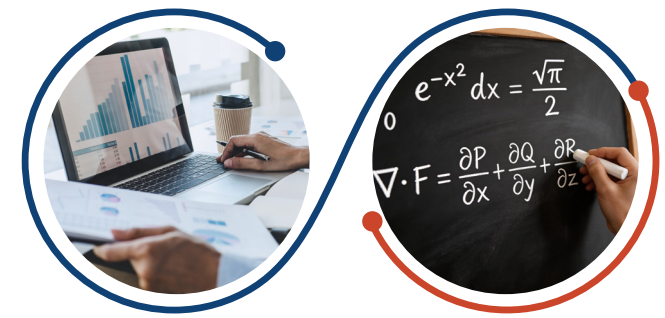


ADMISSION REQUIREMENTS

To be admitted into any of the undergraduate degrees offered by the department, candidates must have a National Senior Certificate with an achievement rating of 4 (50–59%) or better in English, Mathematics, Physical Science, and either Computer Science or another science subject. Students from the Extended BSc Degree Programme require 120 credits from their 12 registered modules before admission to the mainstream degree.

CAREER OPPORTUNITIES

- Graduates in Mathematics and Applied Mathematics develop strong analytical and problem-solving skills that prepare them for careers in finance, engineering, and research, as well as in industries such as energy, telecommunications, and environmental modelling.
- Computer Science graduates are highly sought after in fields including software development, cybersecurity, artificial intelligence, and data engineering, with opportunities spanning industry, government, and entrepreneurship.
- Statistics graduates play an essential role in data-driven fields such as data science, healthcare, finance, public policy, economic planning, and social research, where they analyze data, build models, ensure data accuracy, manage large-scale surveys, and support informed decision-making.



PROGRAMMES OFFERED

UNDERGRADUATE DEGREES (BSC)

- Mathematics & Applied Mathematics (MNBBSF)
- Mathematics & Physics (MNBBSH)
- Mathematics & Statistics (MNBBSI)
- Chemistry & Mathematics (MNBBSK)
- Computer Science (MNBBSP)
- Computer Science & Mathematics (MNBBSQ)

HONOURS DEGREES (BSC HONS)

- Mathematics (MNHSHM)
- Applied Mathematics (MNHHAM)
- Computer Science (MNHHCS)
- Statistics (MNHSHS)

MASTER'S DEGREES (MSC)

- Mathematics (MNMMSM)
- Applied Mathematics (MNMSAM)
- Statistics (MNMMS)
- e-Science (MNMSES)

DOCTORAL DEGREES (PHD)

- Mathematical Sciences (Statistics) (MNPPST)
- Mathematical Sciences (Mathematics) (MNPMSM)
- Applied Mathematics

